

IDentifier for Windows

Version 3.03

Video Imaging Identification System

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Introduction

What Is IDentifier for Windows?

Welcome to IDentifier for Windows, the world's leading software for the creation of digital photo ID badges! IDentifier for Windows combines database, badge design, image capture, point-and-click hardware setup, and badge printing all from within one user-friendly interface. If you are a previous user of IDentifier for Windows and upgraded to version III, you may wish to jump right to "New to IDentifier for Windows III" on page 8 to review the new and improved features. If you're new to IDentifier for Windows, here's a brief description of what this software package has to offer:

Database

- Based on Microsoft Access 97, IDentifier for Windows can store up to 100,000,000 records
- Personal information is entered in standard text fields using Windows' "point and click" interface
- User-definable database fields
- Perform searches for single records or groups of records
- Create completely customized reports of your data
- Import and export data to and from another database file
- "Repair and compact" utilities included for database integrity
- User accounts and passwords for database security
- More...

Badge Design

- Design badges in a WYSIWYG window
- Badges are printed *exactly* the way they appear in the design window
- A "Toolbar" for quick access to commonly used commands
- Image "ghosting" and "see through"
- Unlimited badge designs
- Single- or double-sided badge design
- Rotation of text, images, bar codes, and badge
- Up to 300% ZOOM in the design window

- More...

Image Capture and Display

- Capture portraits, fingerprints or signatures
- Import images
- Images are immediately available for preview and printing
- Images accessible to other applications

Hardware Setup

- Use any TWAIN, Video for Windows, or FlashPoint input device
- Use any PVC card or Sheet printer which uses a Windows printer driver
- Point and click configuration of hardware options

Badge Printing

- Print badges at the click of a button
- Sheet printing

Whatever your needs, we are sure that IDentifier for Windows will perform beyond your expectations. It is the most user-friendly, yet robust, product in the world today!

Minimum Requirements

There are some minimum requirements of your system in order for IDentifier for Windows to operate effectively. Please verify that you meet these requirements before installing IDentifier for Windows on your computer.

Operating System: You must be running Windows 95/98 or Windows NT 4.0

CPU (central processing unit): You must have an Intel 486 running at 66 MHz or higher. Though IDentifier for Windows has been run on slower computers, we believe most users will be unhappy with the results. The faster and more powerful the CPU, the more quickly IDentifier for Windows will process your data and send images to your printer. IDentifier for Windows running on faster Pentium, Pentium II, Pentium III, and MMX machines obviously show the best results.

RAM (random access memory): You must have a *minimum* of 16 megabytes of RAM. Though 16 megabytes of RAM is considered minimal, best results are obtained with 32 megabytes or more. More RAM generally equates to greater speed.

Hard Disk Space: You must have 13-34 megabytes of free hard disk space depending on which installation options you choose.

- The IDentifier for Windows application requires approximately 13 megabytes of disk space. In addition, extra disk space is required to store individuals' images. Typically, a single portrait is 10K-12K. Therefore, if you have 500 individuals, you will need an additional 5,000K-6,000K of disk space—or 5-6 megabytes—to store their portraits. Storing fingerprint and signature images requires additional disk space.
- The IDentifier for Windows Interactive Tutorial requires approximately 13 megabytes of disk space.
- The IDentifier for Windows on-line User Manual (in PDF format) requires approximately 7 megabytes of disk space.

Video/Digital Capture Card: If your “capture” device requires it, you may need to install a “capture board” which allows a digital or video image to be brought into your computer. The capture card typically is installed in either a PCI or ISA expansion slot on your computer's motherboard. Some capture devices, however, attach to your com-

puter using a parallel, serial or Universal Serial Bus (USB) port on the back of your computer, and no additional hardware is required. Consult the documentation accompanying your capture device for additional hardware requirements.

CD ROM: IDentifier for Windows only installs from a CD. Your PC must have a CD ROM drive.

Keyboard and Mouse

What's On the CD

The IDentifier for Windows CD contains:

- **The IDentifier for Windows application.** Installing this application will copy all the files needed to run the full version of our photo ID badging system.
- **IDentifier for Windows tutorial.** This is an interactive tutorial which will display all the windows, buttons and dialogs of the real IDentifier for Windows application. Many of the “buttons” work just like the real application. Accompanying text and “tool tips” explain how to use the various aspects of the IDentifier for Windows application.
- **On-line User Manual.** This manual has been converted to a Portable Document File (PDF). Once installed onto your computer, you can read the “electronic” version of this manual. If you do not have Adobe’s free Acrobat Reader, you may also install this from the CD.

When you run IDentifier for Window’s Setup Wizard, you will be presented with the option to install any or all of these components.

What's new in IDentifier for Windows III

If you’ve used a previous version of IDentifier for Windows, much of what you see will be familiar. However, a stream-lined interface and new features will surprise you at almost every turn. From launching immediately to a Search window, to the new ability to add and update records, to new security enhancements . . . many welcome surprises await you. The following table offers a brief description of “What’s New” and where to turn in this manual for details:

New Feature	Description	Page
Badge Design	Instead of inserting “samples” to view how an object will look, you can now extract data from a record and “preview” the entire badge.	45
	You can now zoom in and out, from 50% to 300%, for precise alignment of small objects.	106
	You can automatically place borders around text and graphic objects.	114
	Supports Datastrip’s 2D Superscript bar code, allowing for encoding up to 2100 bytes of data, including images.	128
	Supports CMI’s SecurCode bar code for greater security.	45
	An Expression Builder to create custom data strings combining database and literal text.	117
Record History	You can now view a history of every action taken on a record...from dates of image capture, changes of text in a database field, the operator and workstation at which the action was taken, and more.	91
	You can view a history of every <i>system event</i> such as logons and logouts, when system functions were accessed and by whom, etc.	151
	You can view a history of badge issuances. Not only the data that changed from badge issuance to badge issuance, but actually view the original badges on screen.	90
SQL	Your queries from individual reports are now available for fast database searches and exports.	79
Update/Add Records	You now have the ability to add and update records to	140

	your database. If you have two or more database files, and records change in one or more of them, those changes can be updated across the other files.	
	You can add or update images too!	141
Batch Interface	The ability to perform “batch operations” has an improved look and feel. And you can now print multiple badge types for individuals.	93
No Default Logon	There’s no “default logon” to delete once you’ve set up your user accounts.	32
Field Definitions	New interface!	68
	The following field properties which may be edited by you are new: input mask, visibility, protected (from view or edit), supply a default value, restrict pick list values.	61f.
Security	You can now apply “filters” which restrict users from viewing specified records, AND you can hide individual fields from individual users.	34
Import/Export	You can now export specific records, based upon a query, to a text file. Your options for importing records is greatly expanded and simplified.	138
Sheet Layout	You can now re-order the badges in Sheet Layout, PLUS specify which badge on the page to start printing from, or specify a range of badges to print.	58 & 84f.
	You can save an unlimited number of sheet layouts.	58

IDentifier for Windows keeps getting better and better!

Three Versions of IDentifier for Windows

Imaging Technology Corporation offers three versions of its IDentifier for Windows software. All versions offer the same user interface (that is, how the application looks and operates), combining database functionality with image capture and badge printing. The differences between the three versions relate to the presence or absence of “features.” Some features provide database and networking enhancements, while other features offer more robust image capture and badge printing possibilities. Refer to the table immediately below for a description of which features *are* or *are not* present in the three versions.

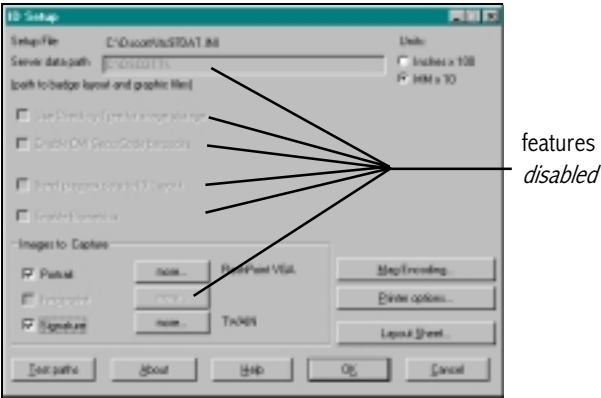
IDentifier for Windows Version	750	1100	2100
Networking			
IPX/SPX, TCP/IP, NetBIOS	No	Yes	Yes
Multiple languages			
English, Spanish, Portuguese, German, French	Yes	Yes	Yes
Imaging			
Number of images per record	2	3	30
Software controlled camera	Yes	Yes	Yes
Any device with TWAIN or Video for Windows interface	Yes	Yes	Yes
Select multiple image file formats	No	Yes	Yes
Automatic image display	No	No	Yes
User-defined image size	No	Yes	Yes
User-defined image storage directories	No	Yes	Yes
Database Design			
Unlimited user-defined fields	Yes	Yes	Yes
Apply field formatting, indexing, size, required	Yes	Yes	Yes
Hide fields from View	No	No	Yes
Protect fields from edit	No	No	Yes
Database Management			
Option to require image capture	Yes	Yes	Yes
Option to use SQL searches	No	Yes	Yes
Option to use ITC Print Controller	No	Yes	Yes
Attach to another database	No	Yes	Yes
Import database	Yes	Yes	Yes
Import images	No	Yes	Yes
Export database	Yes	Yes	Yes
Export selected records	No	No	Yes

Database reports	unlmted	unlmted	unlmted
Batch edit, print, update	No	Yes	Yes
History of record edits	No	No	Yes
History of badge edits	No	No	Yes
History of system events	No	No	Yes
Printing			
Sheet printing	either	Yes	Yes
Badge Printing	or	Yes	Yes
Specify number of cards/badges in queue to print	No	Yes	Yes
Sheet layouts	unlmted	unlmted	unlmted
Security			
Secure Logon	Yes	Yes	Yes
Number of options for setting permissions	3	13	13
Database filter restrictions for individual user accounts	No	No	Yes
1D Bar and magnetic encoding	Yes	Yes	Yes
2D bar code, CMI SecurCode and Datastrip Superscript	No	No	Yes
Biometric integration	No	No	Yes
Badge Design			
WYSIWYG drawing environment	Yes	Yes	Yes
Tool bar for quick access to badge design tools	Yes	Yes	Yes
Single- or two-sided badge design	Yes	Yes	Yes
Image ghosting and see through	Yes	Yes	Yes
Insert “rainbows”	No	No	Yes
Ghost background image	No	No	Yes
Zoom up to 300% for precise object alignment	Yes	Yes	Yes
Preview data from database record for improved design	No	No	Yes
Create on-the-fly text and data strings (Expression Builder)	No	No	Yes
Create borders for text and image objects	No	No	Yes

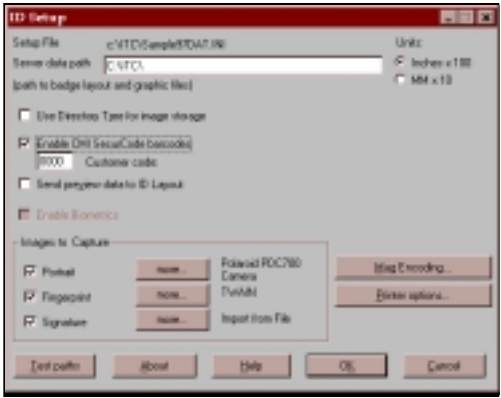
This manual describes the essential operation of all three versions, and in most instances, text and “screen shots” in this document reflect all three Identifier for Windows products. If this manual documents a feature not present in your version of the software, your application interface either will show the feature *disabled*, or the feature will *not be present at all*. See the illustrations below for examples of a feature’s absence.

Differences in the way the absence or presence of features are displayed in the application interface:

ID Setup Dialog

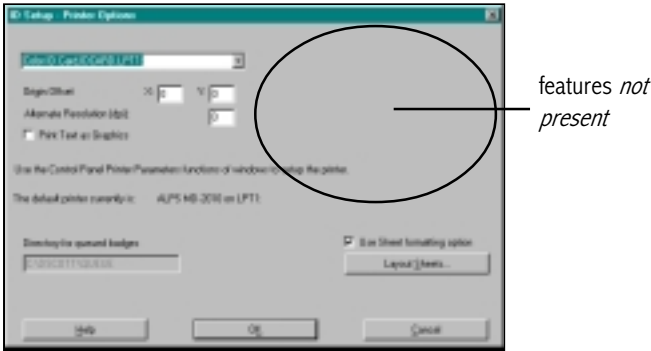


Identifier for
Windows I



Identifier for
Windows III

Printer Options Dialog



Identifier for
Windows I



Identifier for
Windows III

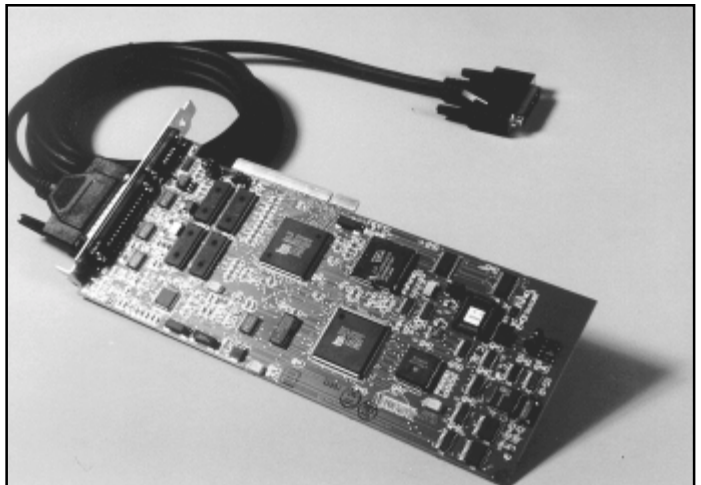
Chapter One: Hardware Installation

Since capturing an image and printing a badge is at the heart of a digital ID badge system, the following pages will guide you through the process of installing your image capture devices and accessories. This discussion will describe the installation of a typical “capture kit” composed of the following components: the FlashPoint video capture board, Auto Light box, CCD 1000 video camera, camera stand, Portrait Light, Penware 1100 Signature Tablet, and Fingerprint Camera. Though your actual hardware may be different, the installation steps will be very similar.

Note to Windows NT users: Before you install the FlashPoint driver and Identifier for Windows software, you must logon with full Administrative privileges. If you do not logon with Administrator privileges, required software values will not be written to the registry and the FlashPoint capture card and Identifier for Windows will not run properly.

Video Capture Card

1. Locate the “port” on the back of your computer where the monitor cable is currently plugged in. That port is part of the existing video card inside the computer. Because you will soon remove the existing video card, make a note as to its location. (Note: in some cases, the “motherboard” performs all video functions without the use of a separate video card. In this case, the monitor is plugged directly into the “motherboard.” You will simply detach your monitor cable and reattach it to the FlashPoint card you will install in a moment.)

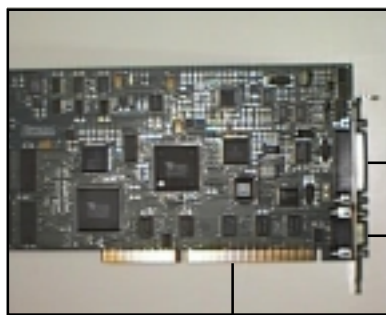


2. Unplug the power, monitor, mouse, keyboard and any other peripheral cables that may be attached to your computer. Turn your computer around so the back is facing you. Most PC's

secure the computer case to the internal “chassis” using several Philips head screws. Remove these and carefully lift the cover off the computer. (Though yours may differ, most computer covers slide back a few inches and then are lifted straight up.)

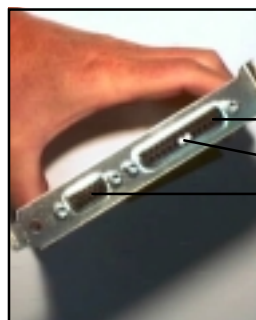
3. Locate the video card to which your monitor was connected. One screw secures it to the back of the computer chassis. Remove that screw and set it carefully aside so it will not become lost. Taking electrostatic precautions (use a grounding wrist strap or firmly (and periodically) touch the metal chassis of the computer with your hand to discharge any static electricity resident on your body), carefully lift the video card out of its socket.

FlashPoint Card



25-pin connector
for Auto Light cable
15-pin connector
for monitor

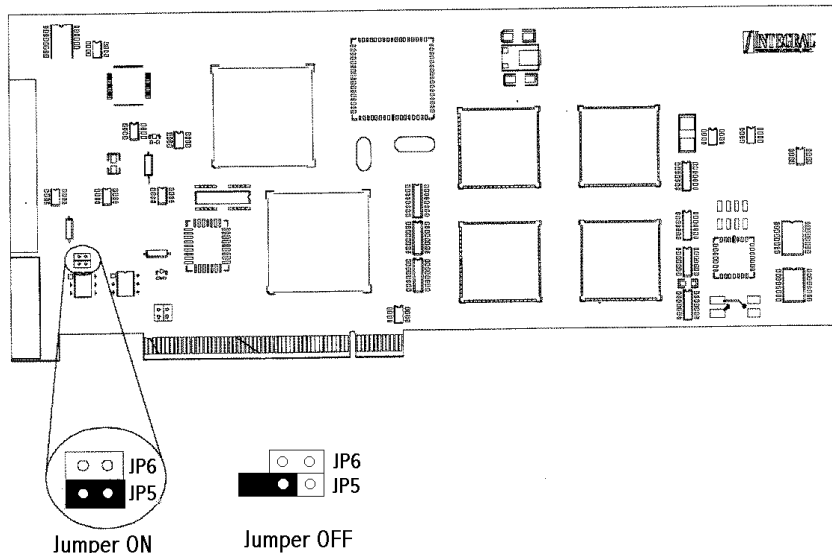
these “fingers” fit in ISA or PCI expansion slot



Auto Light cable
plugs in here
blocked pins
monitor cable
plugs in here

4. Before removing the FlashPoint card from its antistatic wrapper, again touch the metal chassis to discharge your static electricity. Hold the FlashPoint card at the outside edges with your finger tips, being careful not to touch the gold-colored “fingers” that will slide back into the expansion slot. **If you purchased Imaging Technology Corporation’s “Auto Light” AND you purchased the FlashPoint card from someone other than ITC, you must change a “jumper” setting on the FlashPoint card. (ITC sets this jumper for you if purchased directly from ITC.) Locate “JP5” on the surface of the FlashPoint card. A small, black “jumper” is attached to pin 1. Lift the jumper off pin 1 and replace it so it covers pins 1 and 2 as shown in the diagram below. If you are using a Flash attachment, leave the JP5 jumper set to pin 1.**
5. Carefully seat the FlashPoint card into the slot from which you removed your old video card.

The jumper should be "ON," that is, covering both pins, only if you are using ITC's Auto Light box. Otherwise, it should be in the "OFF" position.



Push down gently, but firmly, until the card is fully seated. Using the retaining screw you removed a moment ago, secure the card to the back of the computer chassis.

6. Using the screws you removed at the beginning, replace the computer case. Reattach the power, monitor, mouse, keyboard and any other peripheral cables to the back of the computer. Note that the monitor cable will be reattached to the 15-pin female connector of the FlashPoint card you just installed. Restart your computer and launch Windows.
7. **Windows 95/98 users:** When Windows 98 restarts, its "Plug and Play" technology will automatically recognize that new hardware was been added, but will install the **wrong** video driver. After Windows has finished booting, click Start ➤ Settings ➤ Control Panel ➤ Display to open the Display control panel. Click the Settings tab and click the "Advanced Settings" button. On the "Adapter" tab, click the "Change" button. Insert the FlashPoint Drivers floppy disk that came with the FlashPoint card and click "Have Disk" in the "Select Device" window. Follow the prompts. **Windows NT users:** "Plug and Play" technology will *not* recognize your new FlashPoint card. After Windows has finished booting, click Start ➤ Settings ➤ Control Panel ➤ Display to open the Display control panel. Click the Settings tab and click the "Advanced Settings" button. On the "Adapter" tab, click the "Change" button. Insert the FlashPoint Drivers floppy disk that came with the FlashPoint card and click "Have Disk" in the "Select Device" window. Follow the prompts.

8. After Windows has started and you are at your “desktop,” click the *Start* button and choose Settings ➞ Control Panel.
9. In the Control Panel window, double-click the Display icon.
10. In the Display Properties window, click the Settings tab. In the Settings property sheet, look at the Color Palette field. The Color Palette needs to be set to “High Color (16 bit)” or “True Color (24 bit).” If neither of these are displayed in the Color Palette field, click on the down-arrow to the right of this field to select the proper setting. (Some applications installed on your computer “may not like” the True Color (24 bit) setting; when you run these applications, they may display a message requesting you to reset the color palette to “High Color (16 bit).” Doing so will not effect Identifier for Windows.)
11. Click *OK* to close the Display Settings window, and close the Control Panel window. Shut down and turn off the power to your computer.

Camera Stand

The camera stand is shipped to you unassembled. It consists of a metal base plate, and a telescoping pole that screws into the base and on which the camera assembly is attached. Follow these steps:

1. The black, metal post is threaded on both ends. The threads on one end are larger than the other. Screw the larger of the two ends into either of the two holes in the base plate and tighten. (The second hole supports an optional “umbrella lighting stand.”)
2. The “pan-tilt head assembly” screws onto the top of the metal post.



Auto Light box

The Auto Light box provides connectivity between your video camera, fingerprint camera, portrait light and PC.

The front of the Auto Light box contains two LED lights indicating “power on to the box” and “power on to the portrait light.” The front of the Auto Light box also contains one 5-pin “power-in” connection and one 25-pin port connecting the box to the FlashPoint card in the PC.

The back of the Auto Light box contains four ports for connecting peripheral devices (from left to right): 1.) 25-pin connector for video camera cable, 2.) 5-pin connector for SVideo (Source 1) camcorder cable, 3.) BNC connector for Composite (Source 1) fingerprint camera cable, and 4.) 4-pin connector for portrait light cable.

1. Connect the 10-foot 25-pin SVideo (Source 2) cable between the FlashPoint card on the PC and the 25-pin connector on the front of the Auto Light box.
2. Connect the power cable to the 5-pin “power-in” connector on the front of the Auto Light box. (One LED light will glow when power is supplied to the box.)



connection for
power

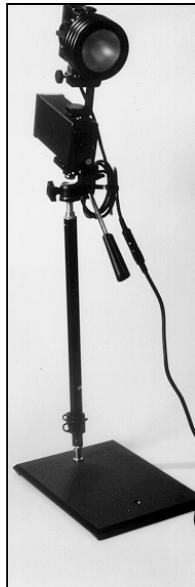
port to connect to
FlashPoint on PC



ports for connecting peripherals

Video Camera

1. Remove the camera from its packaging. Note: there are threaded holes on both the top and bottom of the camera. Mount the camera onto the pan-tilt head assembly so that the label is on the bottom (facing the floor). Attaching the camera “label-up” will result in images being sent to the computer upside-down. The camera is attached to the pan-tilt head assembly by threading the set screw up into the bottom of the camera. Remove the plastic lens cover from the front of the camera.
2. A 10 foot length of cable with 25-pin connectors on each end was shipped with your camera. Connect one end to the 25-pin SVideo (Source 2) connector on the back of the Auto Light box, and the other end to the back of the CCD 1000 video camera.



Portrait Light

1. The Portrait lighting unit easily attaches to the top of the video camera with the mounting screw. Adjust the angle of the light so it points forward.
2. Attach the 4-pin cable from the portrait light to the 4-pin connector on the back of the Auto Light box.



Fingerprint Camera

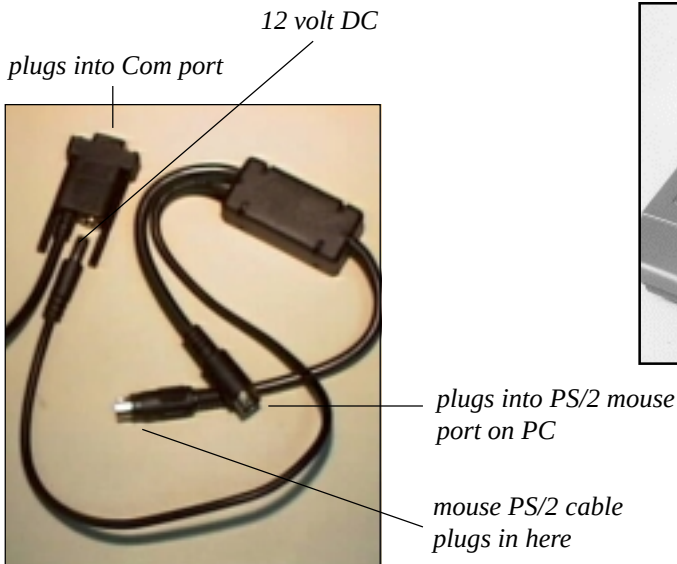
1. Attach the 10 foot fingerprint camera cable to the Composite (Source 1) BNC connector on the back of the Auto Light box.



Signature Pad

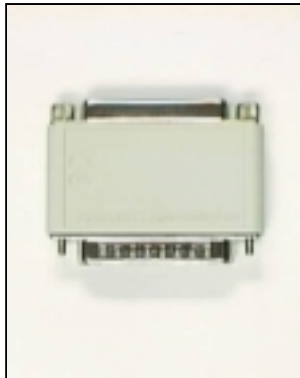
The following instructions apply to the Penware 1100 Signature Pad. If you purchased the Penware 1500 Signature Pad (this has a built-in LCD signature display), power must be supplied from the supplied AC power adapter.

1. The Signature Pad has one wire coming out its back. The end of this wire has a 9-pin female connector that must be plugged into the 9-pin "Com 1" port on the back of your computer. (Most PC's have two "Com ports" identified as "Com 1" and "Com 2." Use Com port 1.)
2. A separate PS/2 power cable draws power for the signature pad from the PS/2 mouse port on the computer. The 12 Volt DC end of the PS/2 power cable plugs into the back of the 9-pin signature pad connector (connected to the Com 1 port).
3. The male end of the PS/2 power cable plugs into the PS/2 mouse port on your computer; reattach your mouse to the female end of the PS/2 power cable.
4. Optionally, you may "power" the signature pad using the supplied AC power adapter. Attach the 12 Volt DC end of the power adapter into the back of the 9-pin connector attached to the COM 1 port.



Security Key

A “security key” was shipped with your software. You will need to attach it to your computer’s LPT1 parallel printer port. (Each “security key” has a unique serial number. After you install IDentifier for Windows, the serial number of the key can be displayed by pulling down the Help menu in any application window and selecting “About.”) If your printer is currently connected to your computer’s LPT1 port, unplug the printer’s cable and attach the security key in its place. The security key has a female connector at one end and a male connector at the other. It will only attach to your computer one way. The printer’s cable may now be reattached to the back of the security key. (Note: IDentifier for Windows will not operate without this key. IDentifier for Windows also may not work if your printer is plugged into the security key and the printer’s power is OFF. Either attach your printer to another parallel port, or always keep your printer’s power ON when using the IDentifier for Windows software.)



You are now ready to turn on your computer!

Chapter Two: Software Installation

IDentifier for Windows uses a “wizard” to guide you through the steps for installing the software. Note: If you intend to install IDentifier for Windows in a networked environment, each computer must “map” the shared network drive onto which certain files must be copied **before installation**. (Your Network Administrator must create a network directory which will contain the database and image files, and assign full Read, Write and Delete privileges to it. Once created, each computer must “map” that drive. To do so, double-click the “Network Neighborhood” icon on your desktop. All available network resources are displayed. Double-click the workstation/file server where your Network Administrator created the shared directory, then right click on the folder representing the hard disk. Choose “Map Network Drive” from the pop-out menu.)

Note to Windows NT users: Before you install IDentifier for Windows, you must logon with full Administrative privileges. If you do not logon with Administrator privileges, required software keys will not be written to the registry and IDentifier for Windows will not run properly.

1. Insert the IDentifier for Windows CD in your CD ROM drive. If “auto insert notification” is enabled in the Device Manager tab of your System control panel, IDentifier for Windows’ installation wizard will automatically begin. If the installation wizard does not begin automatically, open Windows Explorer and browse the IDentifier for Windows CD. Double-click on the file named “Setup.exe.”
2. A “Welcome” window appears. Click *Next* to continue.

3. In the next window, you are prompted to read the License Agreement. Click *Next* to continue.
4. You are next asked to select a location on your computer where IDentifier for Windows will be installed. Accept the default directory (C:\ITC) or click *Browse* to select a new location.
5. Next, a “Select Components” window appears in which you may choose which items you want to install.
 - Select “Application” *if you already have Microsoft Access 97 installed on your computer and you accepted the default installation directory (C:\Program Files\Microsoft Office\Office\)*. This option will install the database files necessary to run the IDentifier for Windows application.
 - Select “Access Run-time Files” *if you DO NOT have Microsoft Access 97 installed on your computer or if you installed Microsoft Access to a non-default directory (e.g., D:\My Folder\Access\)*. This option installs a “run-time” version of Access 97 required to run IDentifier for Windows.
 - Select “ID Server” if you want to install *ID Layout* for badge design, *ID Print* for badge printing, *ID Setup* for point and click image capture and printer setup, and *ID Server* for image capture and display.
 - Select “User Manual” to install this manual on your computer in “PDF” (Portable Document File) format for on-line viewing. If you select this, you will be prompted later to install Adobe System’s Acrobat Reader which is required to read PDF documents.
 - Select “Wasp” to install the Wasp family of free bar code fonts. If you wish to incorporate bar codes in your badge designs, you need to have bar code fonts installed in your system.
 - Select “Interactive Tutorial” to install an interactive tutorial of IDentifier for Windows. The tutorial offers step-by-step lessons in using many of IDentifier for Window’s application features.
6. Next, you are prompted to install a sample database containing five records. (You may delete the records later.) You are also prompted to indicate if this will be a networked installation. If you check “Network Installation,” the next window will ask you to navigate to the mapped drive and shared directory your network administrator created earlier. IDentifier for Windows files which will be shared across the network will be copied to this directory.

7. Next, you are asked to accept the name and location of the Shortcut Program group to be placed on Windows' *Start* button.
8. A window appears confirming your selections. If you wish to change an option, use the wizard's *Back* button.
9. A final window informs you that the installation is complete.
10. If you elected to install the User Manual, one additional wizard prompt appears: an option to install Adobe's Acrobat Reader. Click "Yes" to install Acrobat Reader, or "No" to skip this installation.

Congratulations! You have installed IDentifier for Windows and are now ready to use the world's #1 program for creating digital photo ID badges!

Chapter Three: Before You Begin

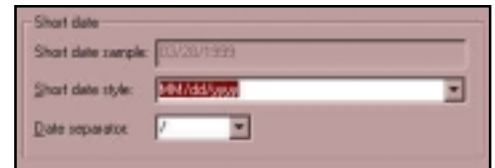
Once IDentifier for Windows has been installed on your computer, you may immediately begin to use it's database functions to create or import records. However, we recommend that you take a few minutes first to establish your application preferences and configure your capture devices and printers. Therefore, this chapter will cover:

- Year 2000 Compliance
- Creating “User Accounts” and “Passwords”
- Preferences and running ID Setup
- Configuration Options
- Attaching to a Networked IDentifier for Windows Database

Year 2000 Compliance

IDentifier for Windows is Year 2000 compliant, but only if the following setting has been made:

Go to Windows Control Panel folder (Start ➤ Settings ➤ Control Panel) and double-click *Regional Settings*. Click the Date tab. Select MM/DD/YYYY for the *Short date style*. You must now use four-digit year dates in all IDentifier for Windows date fields.



User Accounts and Passwords

One of the reasons you are using IDentifier for Windows is because of your concern for security. Your photo ID badges allow you to have a measure of control over who is allowed access to certain areas of your facility. Similarly, through its use of a logon window, IDentifier for Windows allows you to have control over who is able to access the IDentifier for Windows application. This prevents unauthorized users from creating, editing or printing badges and reports. This discussion is intended for those few individuals who will have permission to create “user accounts.”

IDentifier for Windows implements “user accounts” in the following way: a record in

a hidden table is created for each “user” of the application. Only someone with the appropriate permission is allowed to add or delete records from this table. The application administrator creates a record for each person he or she expects to use Identifier for Windows. As each record is created, appropriate “permissions” are assigned to that user. The application administrator may assign an initial password for each user, but users may change their passwords at any time thereafter. Though the application administrator can never “read” a user’s password (passwords always appear as asterisks), he or she may over-write or delete a user’s password at any time, or delete the “user account” (record) entirely, thereby denying access to the application.

When you logon to Identifier for Windows for the first time, the User Name and Password fields are blank, indicating that no “user accounts” have been created. To “secure” the application, that is, force the initial logon window to require user names and passwords, at least one user account with “System admin” privileges must be created (see below). If all “user accounts” enjoying “System admin” permission are deleted, the logon window will stop forcing the use of user names and passwords. This is a visible reminder that at least one “user account” must have over-all access to the database.

Begin by launching Identifier for Windows:

1. From Windows *Start* button, go to Programs, then to Identifier for Windows, and select Identifier for Windows.
2. A logon window appears. (Since you have not yet created a “user account,” the fields for “Enter your user name” and “Enter your password” are disabled. You will create these in a moment.) Click the “✓” to continue. (The “✗” cancels the logon and quits Identifier for Windows.)
3. You are now at Identifier’s “home page”—the starting point for all your Identifier for Windows tasks.

Create a User Account

From Identifier for Window’s “home page,” click the *Tools* button. In the resulting Tools window, click the *Edit user permissions...* button. The User Permissions window appears. *Create*, *Delete*, *Save*, and *Undo* buttons are located at the top.

Create Creates a new “user account.” Each “user account” is denoted by a “record number” at the bottom left of the User permissions window.



Delete

Deletes the current “user account.”



Save

When a “user account” has been created or edited, the *Save* button saves the changes.

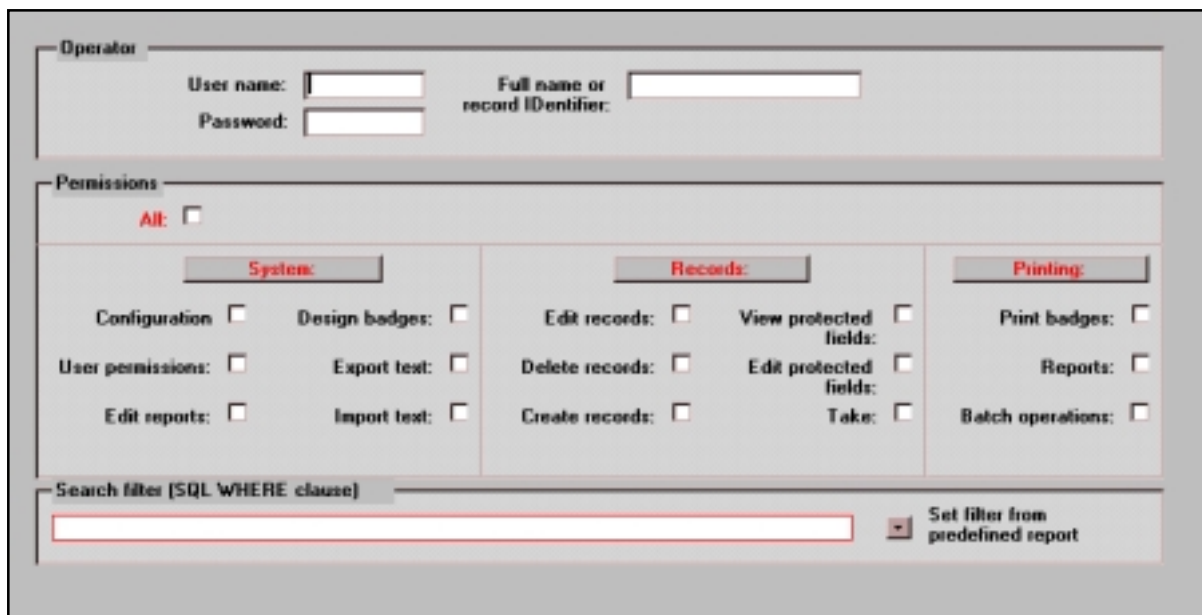


Undo

This button undoes the last action taken in a “user account.”



When you enter the User Permissions window for the first time, a blank record appears on screen. An “Operator” box in this window contains text fields. Enter a “user name” up to 8 characters in the User Name field. This is the name you will enter when you logon to IIdentifier for Windows. Enter a descriptive name for the user in the Full Name field (e.g., first and last name, or employee ID), up to 50 characters long. Enter a password, up to 15 characters, in the Password field. **Passwords may be alphanumeric and are case sensitive!**



Operator		
User name:		Full name or record IDentifier:
Password:		

Permissions		
All: ☐		
System:	Records:	Printing:
Configuration ☐	Edit records: ☐	View protected fields: ☐
Design badges: ☐	Delete records: ☐	Edit protected fields: ☐
User permissions: ☐	Create records: ☐	Take: ☐
Export text: ☐		
Import text: ☐		
Edit reports: ☐		

Search filter [SQL WHERE clause]

Set filter from predefined report

Below “Operator” is a “Permissions” box. This section contains check boxes to enable or disable access to application functions. A function is *enabled* for a user when its box is checked. (IIdentifier for Windows I users: click the System, Record, or Print buttons to enable or disable the options below them.)

The individual permissions are:

<i>Configuration</i>	This permission allows you to use all the tools in the Configuration window (e.g., Preferences, Attaching Database, Setup ID Server, etc.).
<i>User permissions</i>	This permission allows the user to create, edit and delete user accounts.
<i>Edit Reports</i>	This permission allows users to create and edit the queries upon which reports are based.
<i>Design Badges</i>	This permission allows the user to open and use the Badge Layout utility.
<i>Export Text</i>	This permission allows users to export data in the Identifier for Windows database to an export text file.
<i>Import Text</i>	This permission allows users to import data from another database into the Identifier for Windows database.
<i>Edit Records</i>	This permission allows users to edit data in the Identifier for Windows database.
<i>Delete</i>	This permission allows users to delete records in the Identifier for Windows database.
<i>Create</i>	This permission allows users to create records in the Identifier for Windows database.
<i>Edit protected fields</i>	If you marked specific database fields as “protected,” only someone with this permission may edit them. The fields are otherwise un-editable. (See “Chapter Four: Database Design.”)
<i>View protected fields</i>	If you marked specific database fields as “protected,” only someone with this permission may view them. The fields are otherwise invisible. (See “Chapter Four: Database Design.”)
<i>Capture</i>	This permission allows users to capture images using the Capture button.
<i>Print</i>	This permission allows users to print badges using the <i>Print</i> button.
<i>Reports</i>	This permission allows users to print reports.
<i>Batch Operations</i>	This permission allows users to perform “batch” operations (e.g., batch update, delete and print).

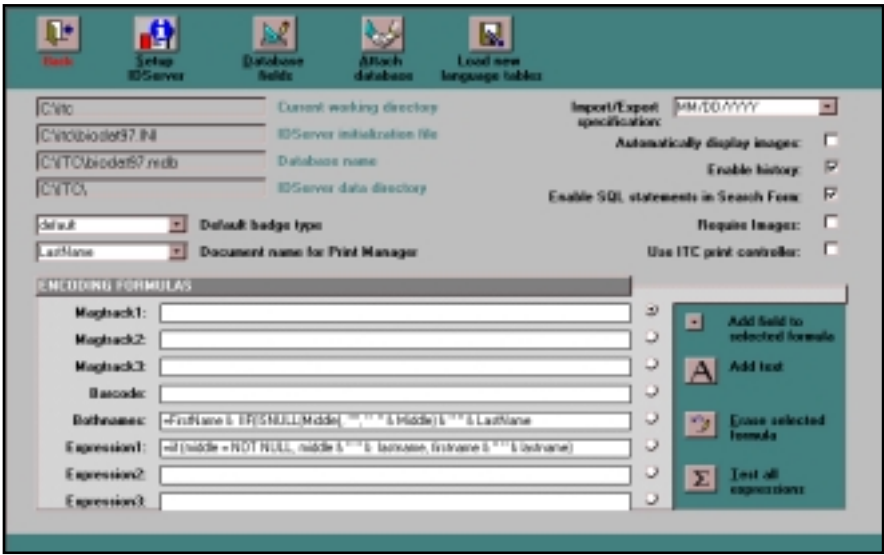
At the bottom of the User Permissions window is a text field for creating a “Search Filter” using a standard SQL Where clause (see page 77f. for instructions on creating SQL Where statements). For each user, you may elect to apply a filter which restricts the records a user may browse. For example, if you want to restrict a user to viewing only records of individuals

belonging to the Engineering Department, you would enter: Department = "Engineering." That user will now only be able to view records which belong to the Engineering department.

Create as many "user accounts" as you need. You may assign temporary passwords which the users may later change.

Configuration Options

A number of system preferences are set in the Configuration Management window. Click *Tools* on IDentifier for Window's "home page" and click *Configuration Management* in the resulting Tools window. Four buttons at the top of the Configuration window perform functions which require special user input.



Setup ID Server

ID Server is the portion of IDentifier for Windows that is responsible for image capture and retrieval. This button takes you to a Setup window in which you set your preferences for "input" and "output" devices (e.g., cameras and printers), as well as other options. (See "ID Setup" below, page 44.)



Database Fields

IDentifier's database fields are fully editable by you. Clicking this button takes you to a window where you may add, delete,





Attach Database



Load New Language Tables

re-order, and edit fields used in Identifier for Windows. (See “Chapter Four: Database Design.”)

In a networked environment, multiple PC’s running Identifier for Windows will “attach” to a central database file. This button brings up a standard Windows “open dialog” in which you navigate to the shared database. (See “Attach Database” below, page 43) Identifier for Windows supports multiple languages. Clicking this button brings up a Windows “open dialog” in which you navigate to a “language file.” After “loading a language,” it appears in the Select Language dialog of the initial Identifier for Windows logon window. (See Chapter Twelve: Changing the Language Interface.)

The main body of the Configuration window is divided into two parts: the top half offers preferences *specific to the local workstation*; the bottom half offers preferences *applied globally to the entire system*. (In a networked system, the “global” preferences need only be set once.)

Local Workstation Preferences

Four non-editable text fields display useful information about the Identifier for Windows application:

Current Working Directory

This field shows the “path” where Identifier for Windows resides on the local workstation.

ID Server Initialization File

This field shows the name and “path” of the file which stores ID Server’s settings. (ID Server is the portion of Identifier for Windows which manages image capture, image retrieval and badge printing.)

Database Name

This field shows the name and “path” of the database file to which you are currently “attached.” That is, this is the file which contains the actual data in your database.

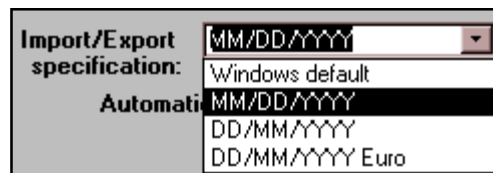
ID Server Data Directory

This field shows the “path” where ID Server will save and retrieve images used for display, preview and badge printing.

Five *Local Preferences* may be set to offer workstation-specific features and functionality. These options must be configured at each workstation running Identifier for Windows.

Import/Export Specification

Dates in date fields adopt the day/month/year format which you set in your computer's Regional Settings control panel. (Note: if you set the *Short date style* to "MM/DD/YY," two-digit year-dates are allowable in Identifier for Windows, but your database is no longer "Year 2000 compliant." If you set the *Short date style* to "MM/DD/YYYY," your database will be Y2K compliant, but queries based upon dates will fail if you do not enter a four-digit year in the Persons Found or Search windows' date fields.)



The Import/Export Specification tells Identifier for Windows how to interpret dates in date fields of an import text file. For example, if you wish to import a database whose dates have been entered as DD/MM/YYYY (12 October, 1996), but you want Identifier for Windows to recognize the dates as MM/DD/YYYY (October 12, 1996), select "DD/MM/YYYY."

Similarly, if you wish to export Identifier's data for use in another database, select the other database's date format from this pick list. Identifier for Windows will convert its own MM/DD/YYYY (October 12, 1996) dates to DD/MM/YYYY (12 October, 1996).

In addition, if your import text file originates from a European database, select the "DD/MM/YYYY Euro" option. (European databases use a semicolon (;) instead of a comma as a field delimiter—this option adjusts for that.)

Automatically Display Images



The automatic image display preference allows you to have captured images automatically display when opening a database record. If this option is not enabled, the image is not displayed until you click *Display* in the Persons Found window. This option may be toggled on or off as often as you wish.

Enable History



This preference "turns on" a history of changes made to specific records. When Enable History is "on," a *History* button is displayed in the Persons Found window. Clicking *History* presents a record of changes made to database fields, a history of badge issues, the logon operator who made the changes or issued the badges, and more. Identifier for

Windows does not begin creating a “history” until this option is checked. (See “Chapter Six: the Persons Found Form.”)

Enable SQL statements in Search Form

Selecting this option inserts two new search fields in the “home page” of IDentifier for Windows: “SQL WHERE clause” and “SQL ORDER BY clause.”



The “SQL WHERE clause” field allows you to create very customized searches of your database using common “SQL” (structured query language) commands. The “SQL ORDER BY clause” allows you to custom-sort the results of a query. (See “Chapter Five: the Search Form.”)

Global Preferences

The following preferences may be set “globally.” (In a stand-alone system, these settings control IDentifier for Windows on the local workstation; in a networked environment, these settings apply to every workstation running IDentifier for Windows and only have to be set once.)

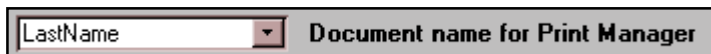
Default Badge Type

The *Default Badge Type* preference allows you to simplify data entry by establishing a default badge type whenever a record is created. Select from the drop down list the badge you wish to use as the default. The list displays any “.bdg” (badge layout) files found in the folder you specified in the “Server data path” (see page 44 below). When you create your own badge layouts, ensure that they are saved to the folder you specified in the “Server data path” field. (Until you create your own badge layouts, only the “default” badge will appear in this list. After you have created your badge layouts, you may wish to return to this Configuration window to specify a default badge.)



Document Name for Print Manager

The *Document name for Print Manager* preference allows you to associate a dynamic database field with a print job. That is, whenever you send a badge to the printer, that print job's "name" will appear in the Print Manager window with the contents of the field you enter here. For example, if you enter "LastName" (one of IDentifier's fields) in this preference field and send John Baker's card to the printer, Windows' Print Manager will report that "Baker" is queued for printing.



Require Images



The *Require Images* preference allows you to choose between making portraits optional or required when printing badges. If you leave this check box empty, cards may be printed even though an individual's picture has not been taken. If you place a check in this box, IDentifier for Windows will not print an individual's badge until his or her picture has been taken.

Use ITC Print Controller



The *Use ITC Print Controller* preference allows you to use Imaging Technology Corporation's separately purchased network print controller to off-load the rasterizing of badge layouts from the local workstation to a dedicated print server. Doing so greatly enhances the performance of the local workstation and the speed of printing. *If you did not install this separate application, do **not** select this preference; doing so will adversely affect your badge printing.*

Encoding Formulas

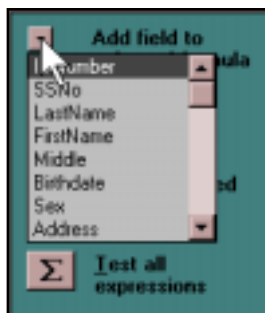
There are eight text fields for entering a variety of "encoding formulas" or "expressions." Again, to simplify data entry, you may specify the data to be encoded in mag stripe, bar code, and other fields instead of manually entering it each time you create a record.

Mag Track 1, 2, and 3: In the Magnetic Encoding dialog of ID Setup (below, page

57), you will enter prefixes and suffixes for the magnetic encoding fields instructing your printer when to start and stop encoding data. The Mag track fields here are where you tell Identifier for Windows *what* to encode. *You must know what data your access control software is looking for.* (Note: if your data string is very long, it may not all appear in the mag track field window. Use the left and right arrow keys on your keyboard to “scroll” through the data string.)

Because your mag card reader *may* require complex strings of data, Identifier for Windows made it easy to create these formulas using the *Add Field* and *Add Text* buttons. Or, you may manually type the required field names and text. If you enter expressions containing “syntax” errors, Access 97 may not allow you to “leave the field” until the error is corrected. If you do not know how to correct the error, simply delete the contents of the field and try starting over.

To create encoding formulas and expressions using the *Add Field* and *Add Text* buttons: click in an encoding field or on its corresponding radio button to select it. Click the *Add Field to Selected Formula* down arrow displaying a list of all the database fields. Click



the field you want to include in the formula. That field is inserted into the encoding formula field. An ampersand (which links multiple values) is automatically supplied, allowing for placement of the next value. Add as many fields as your card reader requires. (You do not have to delete the last ampersand in the expression.) To insert static or “literal” text in the expression, click *Add Text*. A small window appears allowing you to type the exact text required by the mag card reader. You do not need to enclose text in quotation marks in this window; Identifier for Windows supplies them automatically. (However, if you are inserting *only* blank spaces with no additional characters, the space characters must be enclosed within quotation marks.) Enter the fields and literal text in the order your card reader requires them. Each time you use *Add Field* and *Add Text*, the new values are inserted at the *end* of the data string. If you accidentally insert the values in the incorrect order, use cut and paste to rearrange the data string.

To manually create the encoding formulas: click in the encoding field or on its corresponding radio button to select it. Begin the expression with an equal sign (=). Type in field names or literal text in the required card reader order. Enclose *literal text* (that is, static text appearing on every card's mag track) within quotation marks (“ ”); if the contents of *specific fields* are required, type the field names exactly as they appear in the database; use *ampersands* (&) between fields and literal text to link multiple values. In addition, you may use TRIM, LEFT, RIGHT and other Access 97 formatting features to select *portions* of a database field (such as the first three letters of a last name, or the year of a date of birth). (See Appendix C for a table of common format commands.)

Repeat these steps for each of the mag track fields your card readers require.

Barcode: Follow the procedures above to encode data in the barcode field. Note, however, that like magnetic encoding, bar codes also require “prefixes” and “suffixes.” Barcode prefixes and suffixes are specified within ID Layout (p. 127f.). If your bar code font does not appear in the Encoding list in the Properties of Bar Code dialog of ID Layout, you must manually add the prefix and suffix characters to the Bar Code expression. Insert the encoding characters as literal text (enclosed within quotation marks) at the beginning and end of your Bar Code expression.

If you want:	You must type:	Explanation
Robert Smith	firstname & " " & lastname	The quotation marks contain literal text—in this case, a space to separate the two names
R. Smith	Left [firstname,1] & ". " & lastname	Left [fieldname, 1] is a formatting command that instructs ID Card Maker to extract the first letter of the database field "firstname." The quotation marks enclose a period and space after the first letter of the first name.
Smith, Robert	lastname & ", " & firstname	Enter the fields in the order you wish them to appear. The comma and space enclosed in quotes separate the two names.
<i>If you want to use a nickname, if present, instead of a first name, use a conditional "if" statement like the following:</i>		
Bobby Smith or Robert Smith	=iif (nickname = NOT NULL, nickname & " " & lastname, firstname & " " & lastname)	The "iif" statement presents an "argument." If the "argument" is true, then "result 1" will occur; if the "argument" is false, then "result 2" will occur. The syntax is as follows: iif (argument, result 1, result 2). The expression to the left is interpreted in plain English as follows: "If the contents of the 'nickname' field is not empty (i.e., contains data), then add the contents of 'nickname,' plus a space, plus the contents of 'lastname; otherwise, use the contents of 'firstname' plus a space, plus the contents of 'lastname'." (Of course, you must have a "nickname" field in the database for this expression to work.)

Both Names: Identifier for Windows offers a database field called "BothNames" which links an individual's first, middle and last names. You may customize how the BothNames field displays people's names. (See table on next page.)

Identifier for Windows provides three additional fields called Expression 1, 2 and 3

which you may use in your badge layout. You may create expressions in these fields in the same manner as mag track and bar code encoding fields. Use *Add Field* and *Add text* or type the data strings to create custom strings of information.

When you finish entering all your formulas and expressions, click *Test Expression*. Identifier for Windows verifies the syntax and integrity of each of the formulas, presents a window confirming the results, and displays a sample of each formula (extracted from the first record in the database).



Attach Database



An *Attach Database* button appears at the top of the Configuration window. If you are running Identifier for Windows on a stand-alone computer and accepted the default installation directory, you do not need to “attach;” the database file was installed locally on your computer and Identifier for Windows recognizes it.

In a networked environment, multiple workstations can access the same database file. This avoids the redundancy of maintaining identical database files on separate computers. If you indicated during the software installation that you were installing Identifier for Windows on a network, this database file was created on the network directory you specified.

To attach to an Identifier for Windows database:

Click *Attach Database* in the Configuration window. A standard Windows “open dialog” box appears. Navigate to the network directory created by your Network Administrator; select “ITC97dat.mdb.” Click *OK*; you are now attached. Repeat this at each workstation on the network using Identifier for Windows.

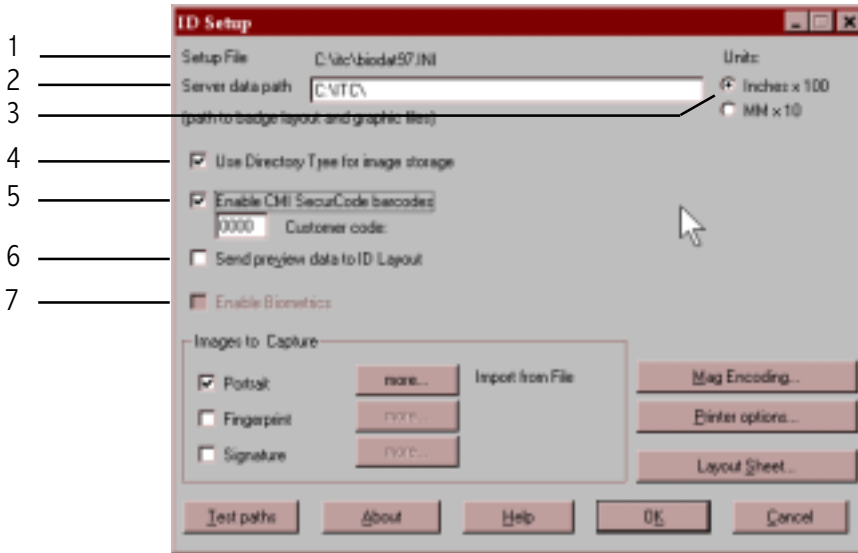
In the future, you may create additional Identifier for Windows databases; when you want to “attach” to them, select their file name from this “open dialog.”



Setup ID Server



A *Setup ID Server* button appears at the top of the Configuration window. ID Server is a utility that configures your image capture and printer settings. You may not capture or view images until you have run the ID Server setup program. When you click *Setup ID Server* an ID Setup window appears.



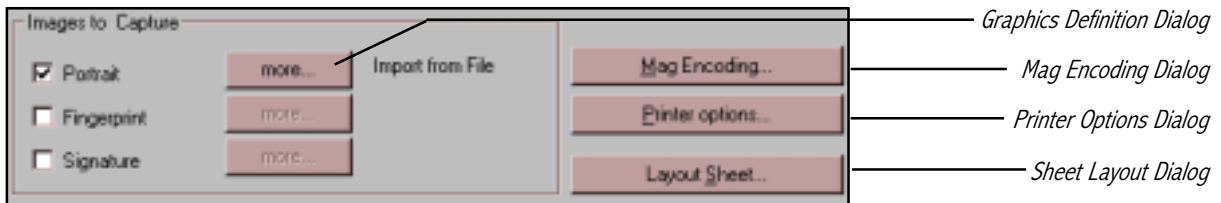
- 1) The path and name of the **Setup File** is identified at the top: C:\ITC\ITCdat.INI. (The path may differ if you did not accept the default installation directory.) Any changes you make here in ID Setup will be written to this file.
- 2) The **Server Data Path** text field is where you tell Identifier for Windows **where** to store and retrieve images, badge and sheet layout files, as well as “field definition” and “translation” files (see “Chapter 4: Database Design” for information on “field definition files;” see “Chapter 12: Changing Languages” for information on “language files”). When you capture images, they will be saved to “Portrait,” “Signature,” and “Fingerprint” directories *inside* the directory specified in the “Server data path” unless you select an alternate location (see “Graphics Definition Dialog” on page 47 below). Ordinarily, the Server Data Path defaults to the directory where Identifier for Windows was installed. You *may* choose another directory on your hard disk or network to save these images, but the Server Data Path on each computer must correctly point to that direc-

tory. In a stand-alone installation, this path should ordinarily point to C:\ITC on the local hard drive. In a networked environment, this path should point to the shared networked drive and directory selected during software installation.

- 3) The **Units:** (Inches vs. Millimeters) radio buttons allow you to specify whether measurements related to captured images and badge size default to metric or English standard.
- 4) The **Use Directory Tree for image storage** check box allows you to improve the speed and performance of image retrieval. The Windows operating system begins to experience sluggishness if it has to search for a specific file (in this case, the individual's portrait, fingerprint or signature) within a directory or subdirectory containing more than 2,000 files. Checking this box tells IDentifier for Windows to automatically create additional subdirectories as needed for every 1000 image files that are created. (These subdirectories will be located inside the Portrait, Fingerprint, and Signature folders which are created automatically when you mark the check box to capture their images.) In this way IDentifier for Windows will be able to search more quickly for and retrieve images. *Do not check Use Directory Tree for image storage if you are using IDentifier for Windows on a Novell Network. Novell is not constrained by this Windows limitation.*
- 5) If you use **CMI's SecurCode bar code** reader and bar code fonts, turn them "on" by checking the Enable CMI SecurCode barcodes check box. SecurCode bar code fonts offer increased security by appending to the database's bar code field an additional set of SecurCode characters encoded and read by the card reader using this system. Enter the additional characters (text or numbers) to be added to the bar code field in the "Customer Code" field which appears immediately to the right when the box is checked. That "string" will now be appended to the contents of the bar code field, and will display in the SecurCode font.
- 6) The **Enable Preview in ID Layout** option allows you to view actual data from the database (i.e., images and text) when you design badges. When you check this option, an alert window will inform you that the data (text and images) from the next record whose badge you preview in the Persons Found window will be used for display purposes in the badge design applet. To later change the "sample" record, return to ID Setup and place a new "check" in this option. You will be prompted again that the next record you preview will be used in ID Layout. Use caution when selecting a record for badge preview; that record is "unsecured" in that anyone with permission to edit badge designs may view the contents of any database field placed, even temporarily, on the badge.

- 7) Check the **Biometrics** box if you purchased and installed the separate “Biometrics” package from ITC. This brings up a window in which you may configure your fingerprint searching and matching capabilities.

In addition to the settings and options that are configured directly within the ID Setup window, there are four additional “dialogs” or windows from which you may configure various hardware and software features:



Graphics Definition dialog

The Graphics Definition dialog is used to select:

- 1) which capture method you wish to use for either portrait, signature or fingerprint,
- 2) image size,
- 3) graphic file format,
- 4) hardware options,
- 5) additional software options, and
- 6) the number of images you wish to capture.

Printer Options dialog

The Printer Options dialog is used to select:

- 1) PVC card and sheet/paper printers,
- 2) print offset values,
- 3) print queue options, and
- 4) enable Sheet Layout.

Mag Encoding Dialog

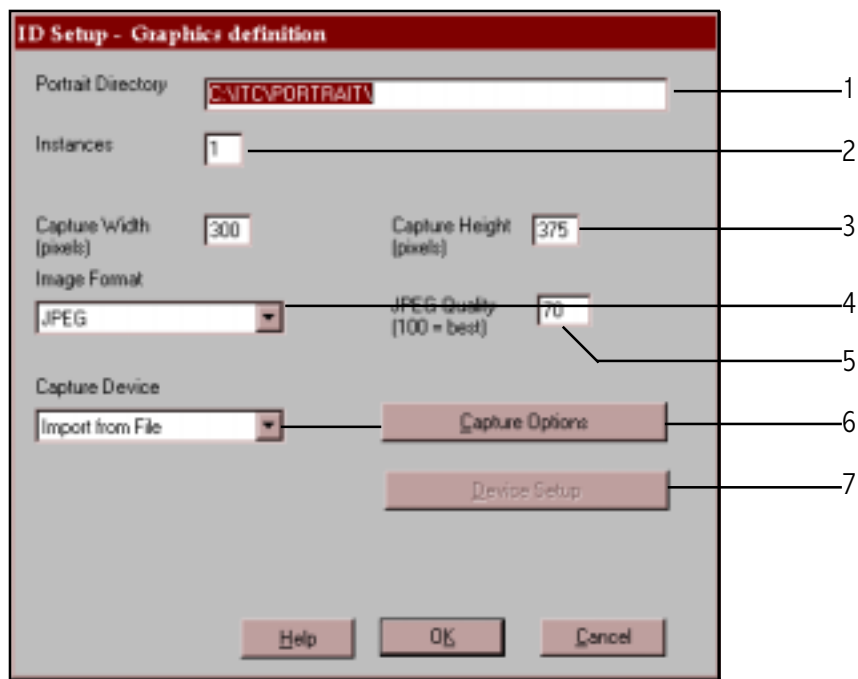
The Mag Encoding dialog is used to select the “start” and “stop” commands which instruct the magnetic encoder on your card printer when to start and stop encoding data.

Sheet Layout dialog

The Sheet Layout dialog is used to design the number and placement of multiple badges on a sheet of material.

Graphics Definition dialog

Open the Graphics Definition dialog by clicking a check box for the image-type you wish to capture (e.g., Portrait, Signature, or Fingerprint), then clicking the *More* button beside it.

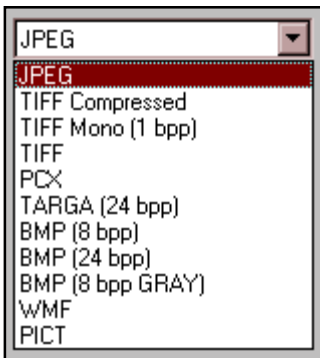


Graphics Definition Dialog

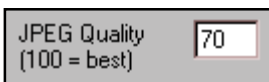
The Graphics Definition dialog offers the following options:

- 1) *Portrait / Signature / Fingerprint directory* This path points to your image files. If you entered a new path in the "Server data path" field in the opening ID Setup window and allowed IDentifier for Windows to automatically write the paths to your images files, that path was automatically entered here. Otherwise, enter the paths to your Portrait, Signature and Fingerprint image directories.

- 2) *Instances* The “Instances” field allows you to capture multiple images for each image type (portrait, signature or fingerprint). Type in the number (from 1—10) you wish to capture. If, for example, you enter “3” in the Graphics Definition dialog for Portraits, you will be prompted to take three portraits before you are prompted to capture signatures and/or fingerprints. (Multiple images are for on-screen display only; only the *first* image will be used in a badge design.)
- 3) *Capture Width* and *Capture Height* Enter width and height parameters in these fields. We recommend a width of 300 and height of 375 for **portraits** (yielding a one inch by 1 ¼ inch image), width of 400 and height of 400 for **fingerprints** (yielding almost a 1 ½ inch square image), and width of 450 and height of 150 for **signatures**.
- 4) *Image Format* You may select from the drop down list the file format in which the image will be saved. We recommend that you save **portraits** as “JPEG,” **fingerprints** as “BMP(8bpp GRAY),” and **signatures** as “TIFF mono.” (Refer to Appendix A at the end of this manual for a table describing the characteristics of the graphic file formats Identifier for Windows supports.)

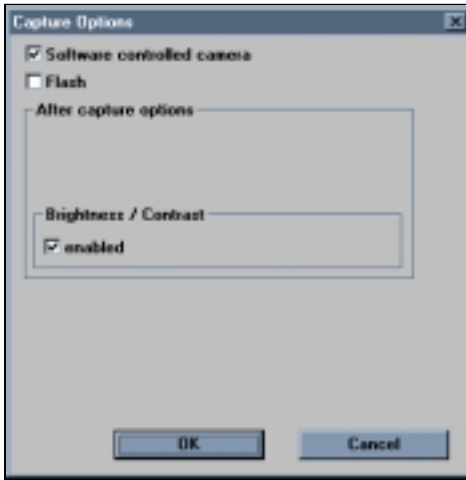


- 5) *Image Quality* This option, only appearing if you selected JPEG as the file format, sets the balance between the image’s compression and image quality. (A lower number offers greater image compression at the expense of image quality. A higher number offers greater image quality, but a larger file.) Through long experience, we recommend that you accept the default value of 70.

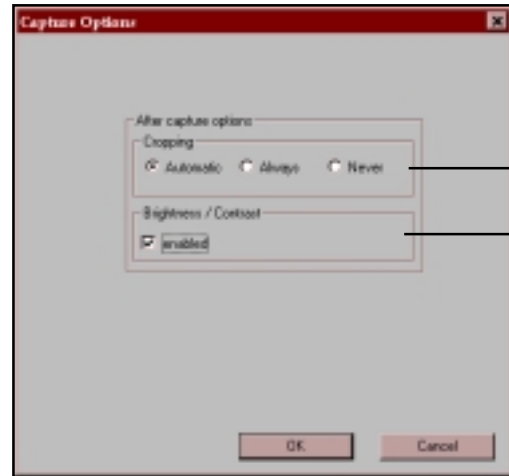


- 6) *Capture Options* The *Capture Options* button in each of the Graphic Definitions windows offers options for cropping and enabling “live” adjustment of image brightness and contrast. (Note: FlashPoint offers an additional option not available for other input methods:

software controlled camera. If software controlled camera is enabled, you may control zooming, back lighting, white balance, and other features of the video camera with the mouse and keyboard. FlashPoint does not offer a separate cropping option because it is built into the capture environment through its use of software-controlled zooming.)



FlashPoint options



Options for all other capture methods

a. Cropping.

i) Automatic If you capture an image at the same pixel size you established in the Capture Width and Capture Height fields above, the image will automatically be “cropped”—the entire image will be brought into IDentifier for Windows at that size. If the image is larger or smaller than specified in the width and height fields above, a cropping window will allow you to select a portion of the image.

ii) Always A cropping window will always appear allowing you to select a specific portion of the image to be used. The portion you crop is saved to the pixel width and height you set above.

iii) Never A cropping window will never be presented. The entire image will be saved.

b. Brightness/Contrast: If enabled, the cropping window will also have slide bars for adjusting the image’s brightness and contrast. Dragging the slide bars left or right

changes the brightness and contrast in “*real time*.” Clicking on the *brightness* or *contrast* buttons to the left of these slide bars will revert the image to its original capture attributes.

- 7) *Capture Device* and *Device Setup* There are five methods for capturing images: a.) the FlashPoint VGA driver, b.) Video for Windows, c.) a TWAIN device, d.) a signature tablet, or e.) import from file. For each image you intend to capture (portrait, fingerprint and signature), select your capture method from the *Capture Device* drop down list. Each capture method offers its own *Device Setup* options when you click the *Device Setup* button.

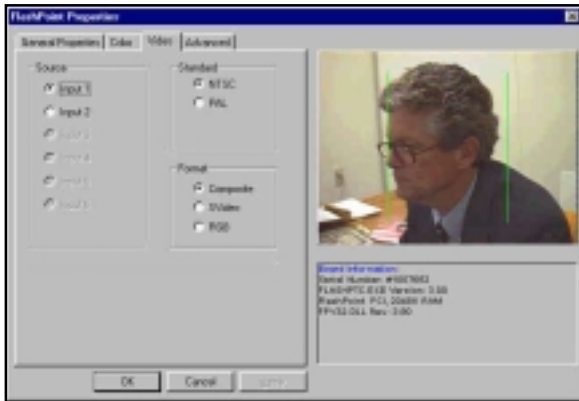


- a. *FlashPoint VGA* The *Device Setup* button brings up a tabbed Property Sheet allowing the selection of various camera options. A live video window displays on the right.

i) **General Properties tab**

- (1) Focus—Select either “Auto” or “Manual.” If “Manual” is selected, the “Near” and “Far” buttons are enabled. (Click either “Near” or “Far” to start the focus—click a second time to stop the focus.)
- (2) Lighting—Select “None or Portrait” if you are not using a light, or are using a portrait light other than ITC’s Auto Light; select “Flash” if you are using a flash attachment; select “Auto Light” if you are using ITC’s Auto Light.
- (3) Zoom—Click the “+” or “-” buttons to set the default level of magnification whenever a new image is captured. (You can always override the default during the actual image capture.) Clicking the “+” or “-” button once starts the zoom; clicking it a second time stops the zoom.
- (4) Camera Iris—Drag the “Live Iris” slide bar to widen or narrow the camera’s iris to the desired result. If “Flash” was selected from the Lighting option, “Flash Iris” and “Flash Delay” become enabled. Drag the Flash Iris slide

iii) Video tab

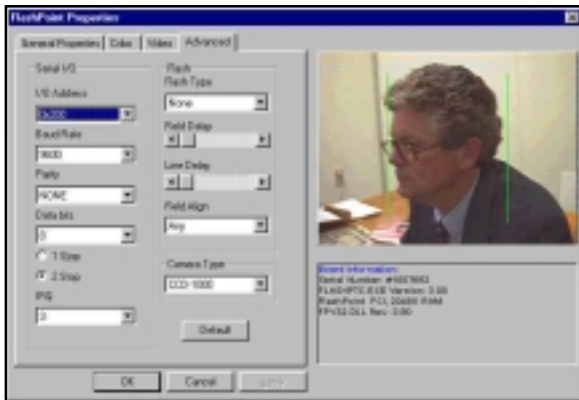


(1) Source—Select your input source. (“Input 1” must be used with “Composite” format; “Input 2” must be used with “SVideo” format. If you “mismatch” source and format, the live video will disappear.)

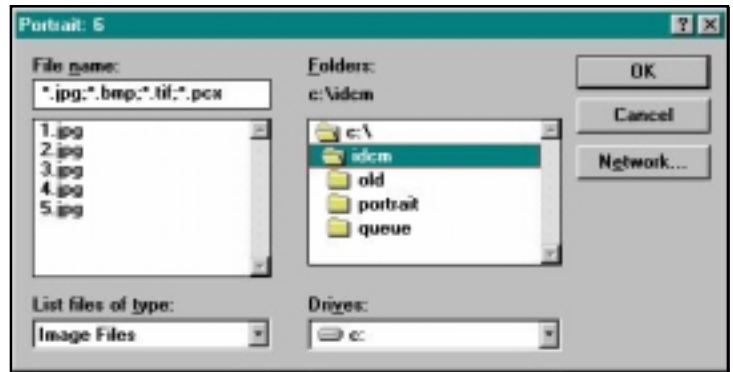
(2) Standard—Select either “PAL” or “NTSC.” (Use the “NTSC” setting for the USA; use the “PAL” setting for Europe.)

(3) Format—Select “Composite,” “SVideo,” or “RGB.” (“RGB” requires custom camera and cabling.)

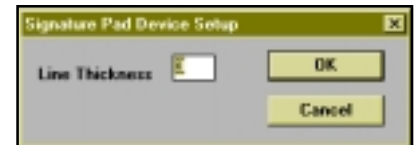
iv) **Advanced tab**—only for advanced users, select options as required.



b. *Import from File* When clicking Identifier’s *Capture* button to take a picture, a standard Windows “open dialog” box appears in which you navigate to the image you wish to use in the database. No device setup options are available.



- c. *Penware Sig Tablet* The *Device Setup* button for this type of capture brings up a small window allowing you to set the thickness of the “pen.” A smaller number yields a thinner “line,” while a larger number yields a slightly thicker signature (like the difference between a fine point and felt-tip pen). “3” is a medium thickness.



- d. *TWAIN* When you select TWAIN as the capture method, the *Device Setup* options present you with a list of all TWAIN drivers installed on your computer. At the top of the list is the option *Always Ask*. If you select *Always Ask*, a selection window showing all available TWAIN drivers will appear every time you begin capturing an image. Otherwise, select a specific TWAIN driver from the list; this driver will always be used. Capture options, such as color, hue and saturation, are configured directly from your TWAIN hardware drivers at the time of capture instead of from ID Setup. The options differ from device to device.



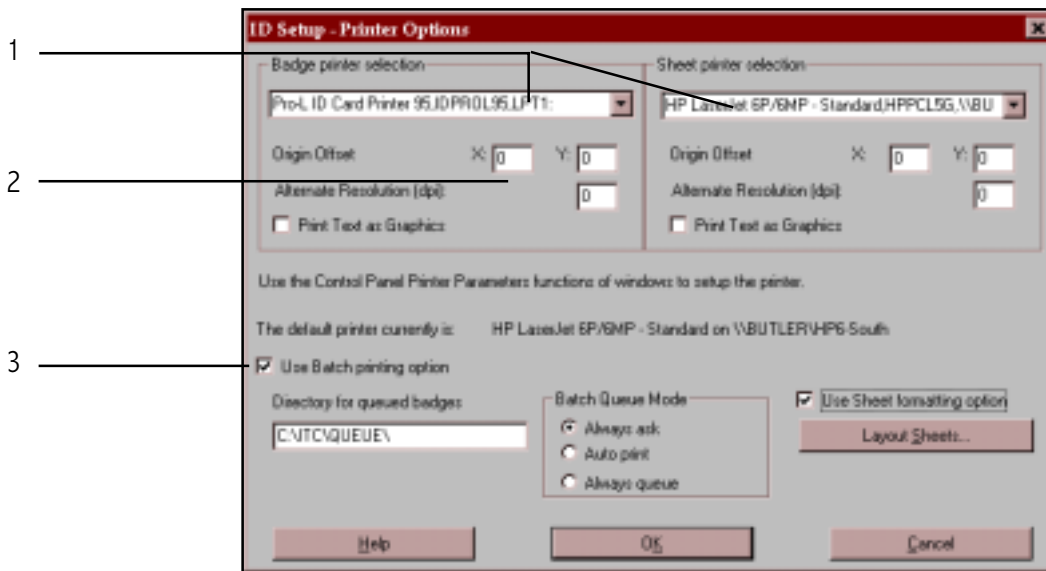
- e. *Video for Windows* The *Device Setup* button brings up a window displaying *Video Display*, *Video Source* and *Video Format* buttons. The options available to you through these buttons are hardware dependent—each device *driver* will present its own windows and feature options. *When setting the Video Display options, however, select “Full,” “Full Screen,” or “640 x 480” (this window may offer choices like ¼, ½, or Full, referring to how large the image will be displayed on screen). This ensures the highest image quality when the image is brought into Identifier for Windows.*



Click OK in each Graphics Definition dialog when you are done.

Printer Options dialog

Clicking the *Printer Options* button brings up the Printer Options dialog for specifying your printer settings. (Your printers’ “printer drivers” must already be installed for them to be available in this dialog.)



- 1) There are two boxes at the top of the dialog: “Badge Printer selection” and “Sheet Printer selection.” One is for selecting your card printer; the other is for selecting a printer for

paper or sheet output. Click the down arrow in each box to select your card and sheet printer from the list of available printers.

- 2) In both the Badge and Sheet printer selection areas of the Printer Options dialog are fields for entering X and Y values for “Origin offset.” This allows you to adjust how closely to the edges of the card or page your printer will print. The offset values are set to the upper left-hand corner of the card or page, and are measured in hundredths of an inch/millimeter. Leave these values set to “0” for now; you may adjust them later if your printed output is not satisfactory. To make the badge print *more to the right*, set the X Offset to a positive number (e.g., 5, 10, 15); to make the badge print *lower on the card or page*, set the Y Offset to a positive number. Additionally, the “Alternate Resolution” fields in this portion of the window allow you to manually adjust the speed and memory requirements of the print process. A “0” in this field tells Identifier for Windows to use the printer’s default resolution when rendering images. If your printer is able to print at extremely high resolution (1200 dpi, for instance), setting the “Alternate Resolution” to 300 or less will improve print speed and performance.
- 3) Several more options are available at the bottom of the Printer Options dialog.
 - a. Checking the “Use Batch Printing Option” enables batch printing and makes three new radio buttons immediately appear in the Printer Options window under the heading “Batch Queue Mode.” These radio buttons refer to queuing options:
 - i) the *Always Ask* option will present a window each time you click a *Print* button asking if you want to print a badge now or queue it for later;
 - ii) the *Auto Print* option is used primarily when printing exclusively to a paper printer—each time you click a *Print* button, the card is sent to the queue until enough cards are queued to fill a page (as defined in the Sheet Layout dialog, discussed below)...when the page is “full” it will print;
 - iii) the *Always queue* option will queue all badge print requests until you decide to print the contents of the queue.

If you do not select the “Use Batch Printing Option,” an individual’s badge will be printed immediately after you click a Print button. If you check the “Use Batch Printing Option,” Identifier for Windows will create a subdirectory named “C:\ITC\Queue” on the local workstation. If you wish to change the directory for where the queue will be

stored, enter the correct path in the Directory field at the bottom of this window. You may change these options at any time by returning to this window.

- b. Check the “Use Sheet formatting option” when you want to bypass the card printer and print your badges on paper. With this option checked, IDentifier for Windows sends the badge print request directly to the sheet printer you selected in Sheet Printer Selection above. This option may be checked and unchecked as often as your needs require. When you check this option, a new *Layout Sheet* button appears here and in the ID Setup window beneath the *Printer options* and *Mag Encoding* buttons. The *Layout Sheet* button disappears when you deselect this option. (See Sheet Layout dialog below.) **Note that if you try to print a badge whose height or width is greater than four inches, IDentifier for Windows will automatically bypass your card printer and send the badge print request directly to the paper printer you selected in the Printer Options dialog.**

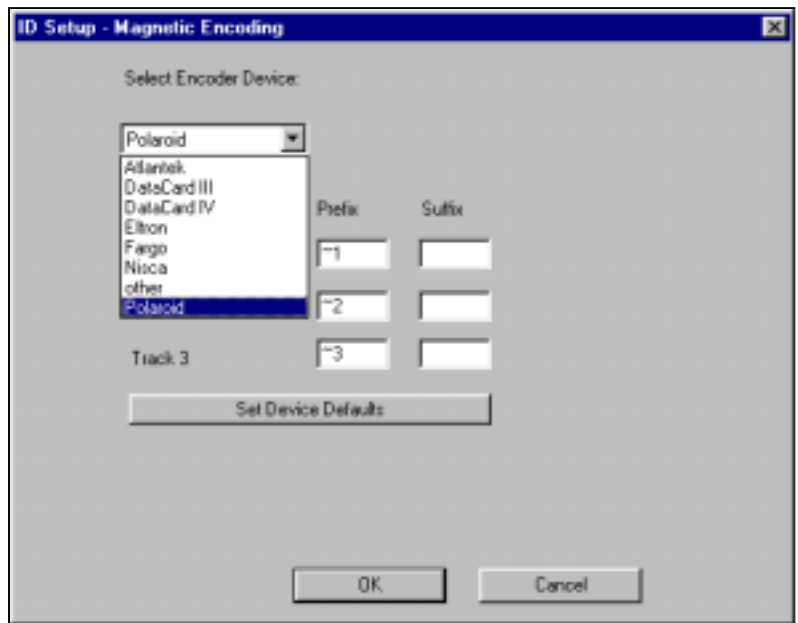
Though unrelated in a strict sense to IDentifier for Windows, mention should be made of the importance of verifying *printer driver* settings in Windows’ Printer folder. The *printer driver* is a software utility provided by your printer manufacturer that allows it to operate in the Windows environment, but also allows you to set various options and preferences for how the printer performs (e.g., selecting between 300 dpi and 600 dpi output resolution). Installing the printer software is one of the first things you do when adding a printer to your computer.

Go to Start ➤ Settings ➤ Printers. The Printers folder opens, displaying all the printers whose drivers have been installed on your computer. Right-click on your PVC card printer in this window and select Properties from the context menu to open the Properties sheet. There is no single standard for how the printers’ properties are presented to you. The Properties sheet may be “tabbed” offering easy access to configuration areas; on older printer drivers, you may have to look for something like a *Setup* button on the Details tab.

Note that this is where you will specify how many color panels your printer ribbon contains, and whether or not you using an overlay panel or protective laminate. Some printer drivers allow you to adjust temperature settings of the card printer’s print head and lamination station. You should familiarize yourself with this property sheet. Because PVC card printers are so *mechanical*, they are the most likely source of problems in producing high quality photo ID badges. The *printer driver* is the first place to turn when trying to troubleshoot printing problems.

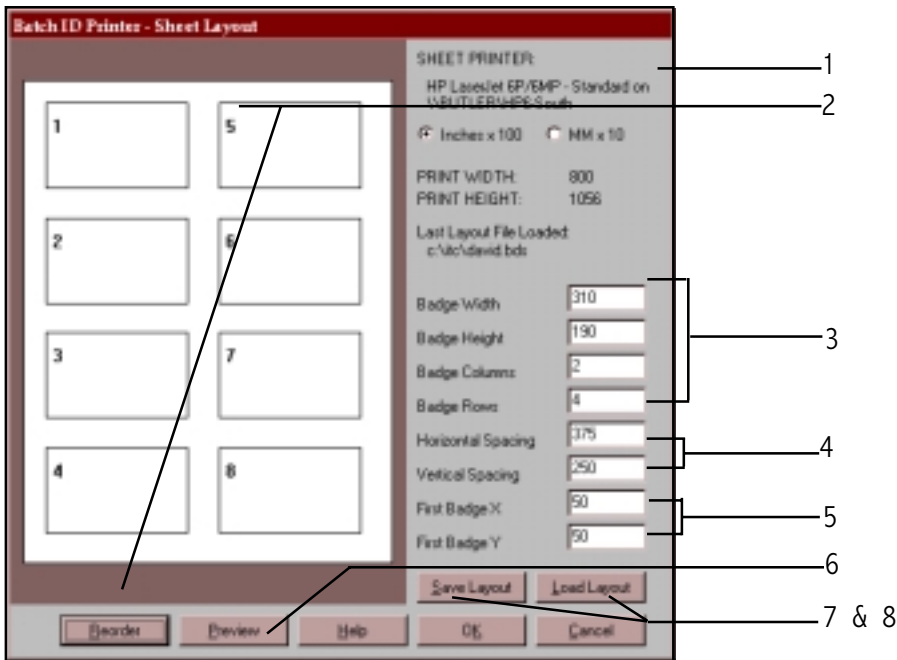
Mag Encoding dialog

When you click the *Mag Encoding* button, the Mag Encoding dialog appears. If your card printer supports writing to a magnetic strip, you must specify “start” and “stop” characters instructing the printer when to start and stop magnetically encoding data. IDentifier for Windows has pre-configured the prefixes (“start”) and suffixes (“stop”) for common card printers. Select your printer from the drop down list; the correct prefix and suffix is supplied. If your printer requires characters other than those supplied by IDentifier for Windows, enter the correct prefixes or suffixes for any of the three magnetic “tracks” your card reader uses. (Refer to your card printer’s documentation to determine whether other prefixes or suffixes are required.)



Layout Sheet dialog

The *Layout Sheet* button is only available if you selected “Use Sheet formatting option” in the Printer Options dialog. The purpose of the Layout Sheet option is to allow you to print more than one card on a sheet of paper. The left side of the Sheet Layout window shows a graphical representation of the sheet layout; the right side of the window contains fields for changing the layout.



- 1) At the top right of this window, the printer you selected in the Printer Options dialog is identified. The Print Width and Print Height values, automatically supplied by the printer driver, refer to the total print area of the page. 800 wide by 1054 high, for example, equates to 8 inches by approximately 10 ½ inches, leaving a ¼ inch margin around the outside of the page. The *Inches* and *MM* (millimeters) radio buttons change the values (numbers) of the measurements.
- 2) If you laid out more than one badge on a page, the badges are “numbered,” indicating the order the badges will print: from left to right, or from top to bottom. Clicking the *Reorder*

button toggles the print order.

- 3) Enter the badge width and height in the Badge Width and Badge Height fields. (Measure your plastic cards if you are unsure of the dimensions.) Enter the number of rows and columns you wish to use in the Badge Row and Badge Column fields. (*Two* rows and *two* columns yields four badges per page; *four* rows and *two* columns yields eight badges per page.)
- 4) Horizontal Spacing field refers to the distance, in hundredths of an inch, from the top left corner of the *first badge in row one* to the top left corner of the *second badge in row one*. Similarly, Vertical Spacing field refers to the distance, in hundredths of an inch, from the top left corner of the *first badge in row one* to the top left corner of the *first badge in row two*. Decreasing these values will bring the badges closer together on the layout. Increasing these numbers will spread the badges farther apart.
- 5) The numbers in the First Badge X and First Badge Y fields refer to the distance, in hundredths of an inch, of the top left corner of the first badge in row one to the top left corner of the printer's printable area. Reducing the First Badge X number brings the first column of badges closer to the left edge of the page. Reducing the First Badge Y number brings the first row of badges closer to the top edge of the page.
- 6) Hitting the Tab key after each entry, or clicking the *Preview* button, will cause the graphical window to display your new layout. The number of badges that fit on the page is determined by how large the badges are, how much vertical and horizontal spacing there is between badges, and what you set as the X and Y offset. To fit more badges onto a page, decrease the vertical and horizontal spacing. You may accept the default settings or experiment with your own sheet printing layout. Do not let the badges overlap in Sheet Layout as this adversely affects the printed output.
- 7) You may save multiple sheet layouts so they do not have to be re-designed each time your sheet layout needs change. Click *Save Layout* to open a standard Windows "Save dialog." Give the layout a name **using 8 characters or less**. Identifier for Windows appends a ".bds" file extension to the end of the name.
- 8) You may quickly and easily use a previously saved sheet layout by clicking *Load Layout*. This button brings up a standard Windows "open dialog" in which you navigate to a sheet layout file. It will now be used for sheet printing.

Load New Language



A *Load new language* button appears at the top of the Configuration window. IDentifier for Windows supports multiple languages. Clicking this button brings up a standard Windows “open dialog” in which you navigate to a “language file.” After “loading a language,” it appears in the Select Language dialog of the initial IDentifier for Windows logon window. (See “Chapter Twelve: Changing the Language interface.”)

Database Fields



A *Database Fields* button appears at the top of the Configuration window. Clicking this takes you to a Database Design window. Though the ability to add, delete and edit database fields is a “point and click” operation, it is one of the most important customizations you will perform in IDentifier for Windows. Therefore, a separate chapter is devoted to this topic. (Please turn to “Chapter Four: Database Design.”)

Chapter Four: Database Design

You may 1.) use the installed, predefined database as is, 2.) modify the predefined database, 3.) create a new database based on the fields from another database file, or 4.) load an alternate database installed with IDentifier for Windows (“Spanish.fdf” or “Standard.fdf” located in the C:\ITC directory). It is recommended that you take time to examine the predefined database to determine whether its fields and layout meet your needs. As you review the predefined database’s fields, make notes as to which specific fields you want to retain, delete, rename or otherwise modify. You arrive at the Database Design window by clicking *Tools* in IDentifier’s “home” page, then clicking *Configuration Management* in the Tools window, and then clicking *Database fields* in the Configuration window.



Database Basics

The basic structure of a database is the “field.” Fields act as “containers” holding the data you type into them. Different types of data require different types of fields. Text, such as a person’s name or address, is entered into a *text* field; dates, such as a person’s date of birth or a badge’s expiration date, are entered into *date* fields. (Though a date *may* be entered in a *text* field, doing so reduces the functionality of your database. In a text field, the entry “January 20, 1945” is treated simply as a collection of keystroke characters; in a date field, however, the same entry is treated as an actual date so that the month, day of month, or year can be used in searches, comparisons, and other functions.) Therefore, it is essential that you understand the types of database fields you require and define their properties accordingly. The following table describes the types of database fields you may use with IDentifier for Windows.

<i>Text</i>	A text field allows the entry of either letters or numbers.
<i>Date</i>	A date field allows alphanumeric entry (you may enter 7/4/98 or July 4, 1998), but treats the data as a date.
<i>Number</i>	A number field allows only numbers.
<i>Text List</i>	A text list is a drop down “list box” or “pick list” containing predefined values which you supply, and in the database from which you make

a selection. If you are going to enter data that is frequently used in the database but may vary somewhat from record to record, consider using a text list field. Use this, for example, for a list of towns or zip codes in a metropolitan area, or for a list of “titles” (Mr.; Mrs.; Dr.; Rev.); text lists provide easy data entry and safeguard against mis-typing. Note: you may also enter data in a text list field that does not appear in the pre-defined list.

Limited List

A limited list is the same as the text list above, except you may not enter data that does not appear in the pre-defined list. Only data in the list may be used in this field.

In addition to there being five *types* of fields, each field type has a variety of *properties*. A description of field properties is listed below.

Field name

This is the name of the field used by the database. The field name must be one word. To use multiple words for the field’s name, either delete the space between them (e.g., “multiplewords”), or separate the words with an underscore character (e.g., “multiple_words”). A field name may be up to 20 characters long. Field names must use alphanumeric characters; the only special character allowed is the underscore (_) character.

Label

The field’s label is a human-readable or human-friendly version of the actual field name. Sometimes a field’s name as used by the database needs to be abbreviated. But when that field is placed on a database form, it can be given a label which makes it easily identified. The field’s label can be more than one word and may contain spaces. If you do not specify a label, the field’s “field name” will be used by default.

Visible

This property makes the field visible or hidden on a workstation. (Removal of the check mark makes the field hidden.) For example, one workstation can have a field “unchecked” and therefore hidden, while another workstation can have the same field “checked” and thus visible.

Type

The field may be of five types: Text, Number, Date, Text List or Limited

List. A text field allows the entry of any keyboard character. A number field allows only numbers. A date field allows alphanumeric entry, but treats the data as a date. A text list is a drop down “pick list” in which you may either select from a predefined value or enter your own values. A limited list is a drop down “pick list” in which you may only select a value from a predefined list of values.

Size

Typing a number in the size property field allows you to set the maximum number of characters the field allows. (When setting the size for telephone, social security and zip code fields, remember to allow extra characters for the hyphens and parentheses between numbers. In addition, try to anticipate the longest entry which a certain field might contain (for example, a lengthy, hyphenated last name), and set the field’s size to that number of characters. Allowing 255 characters (a field’s maximum size), even if only 20 characters are actually entered in that field, needlessly increases the size of the database file and the hard disk space required.) The physical dimension of the field in the Persons Found and Search window shrinks or expands depending on the size you enter here.

Attention to future importing and exporting needs should be considered. If you have a 75-character “address” field in your database, and use all available characters, exporting that data to a database whose “address field” is restricted to 15 characters will result in truncated or lost data.

Required

This property makes a field “required.” That is, when you check this option, a user *must* enter data in this field.

Index/search

When you select a field to be indexed, the database builds an invisible “list” of the contents of that field for every record. When performing a search in that field, the database first looks through its “list” before actually searching through the database itself; doing so *greatly improves* the performance of your database queries. It finds the data you requested more quickly by looking in the “list” or index. Also consider indexing fields you intend to use in reports; even if you don’t anticipate using the field in a typical database search, the creation of

reports will be much enhanced. Fields that are indexed are automatically placed in Identifier's Search window. There are four index options.

No index: Does not build an index for that field.

Index-duplicates OK: Builds an index for that field and allows duplicate entries in the database's records (more than one "Smith" in a last name field).

Unique index: Builds an index for that field, but requires that no two records have the same value. (It would be permissible for a last name field to contain duplicate values, such as "Smith," but not permissible for an "Employee Number" field to contain duplicates.)

Unique index-Nulls OK: Builds a unique index (prohibiting data entry into a field if the value is already used in another record), but allows that field to be empty.

Field format

This field property allows you to apply Microsoft Access formatting to control how data in that field is *displayed*. For example:

To make text appear in a color, type (without quotes) "@[red]"
(you may substitute any other RGB color in place of "red.")

To force text to upper case, type ">"

To force text to lower case, type "<"

To combine lower case with a color, type "<[red]"

To add a prefix of 3 leading zeros, type "!000"

Note: Use the InputMask property to display literal display characters in the field with blanks to fill in. For example, if all phone numbers have the same format, you can create an input mask which automatically supplies the parentheses and dashes. If you define both a display format and an input mask for a field, Microsoft Access uses the input mask when you are adding or editing data, and the Format setting determines how the data is displayed when the record is saved. When using both Format and InputMask properties, be careful that

their results don't conflict with each other. (See Appendix C.)

<i>Protected</i>	Individual database fields may be view- or edit-protected on a user-by-user basis. If a field's protected property is checked, and a user is restricted from viewing or editing protected fields in the User Permission window of IDentifier for Windows, that field will be protected accordingly.
<i>Input mask</i>	You may force the use of characters and spaces in fields with an input mask. For example, you can force the inclusion of dashes (-) or parentheses in phone and social security numbers. (See Appendix C for a table of formatting and input mask commands.)
<i>Default value</i>	You may enter a default value (such as the word "NONE") in a field. Until the user over-writes the word "NONE" with other data, the default value remains visible in the field. Enclose the value within quotes.
<i>Text list values</i>	For text lists and limited lists, type the values you want to appear in the list box. Separate values with semi-colons. To add a blank line in the list, type two semi-colons (;,;).

IDentifier for Windows creates a "field definition file"—a simple text file with an ".fdf" file extension—which stores the names and specific properties you have applied to the database fields. You will learn in a moment the importance of the "field definition file."

If *fields* are the building blocks or individual pieces of databases, *tables* are the containers that hold them. *Tables* appear, both physically and logically, like spreadsheets. That is, data in tables is lined up in columns and rows. Columns represent the individual database fields; rows represent the individual records. However, viewing records in a *table* or spreadsheet-like format is not always the best way to view your data. Therefore, Microsoft Access uses *Forms* in its database model. *Forms* are an alternate way of viewing data. Forms are "graphical." That is, instead of viewing *table* data in rows and columns, *forms* may display data in almost any layout imaginable. Forms may be colorful, contain pictures, and allow database fields to be arranged anywhere in the window. When you are looking at the IDentifier for Windows Search and Persons Found windows, you are looking at the *forms*...the *tables* which contain the actual data are hidden from view.

Why is this discussion needed? In order to view the changes you make to the database *fields*, you must rebuild either the database *forms* or the database *tables*. That is, Microsoft Access must re-draw the forms to reflect, for example, that you changed the text color in a particular field, or it must rebuild the tables to correctly report that, for example, a database field has been deleted. When you edit database fields, some types of changes only apply to the database *forms* while some changes apply to the database *tables*. If your changes require rebuilding the database *tables*, the *tables* cannot be rebuilt if they contain records. Again, why is this discussion needed? Depending on the kinds of changes you make, the database *tables* may need to be emptied (i.e., existing records deleted) before the changes can be put in effect. Therefore, you may be required to delete your data (all your records) before you continue. Ordinarily, you will customize the database fields *before* you begin creating records, and the issue of deleting database records is of no concern. If you decide to change fields *after* you have begun creating records, then this *is* of concern.

There are three approaches to protecting your data from being viewed by unauthorized users:

1. “User level” security: In the User Permissions window, deselect “View protected fields” and “Edit protected fields” for specific users. In the Field Definitions Edit window, check the “Protected” field property for fields you wish to protect from specific users.
2. “Workstation level” security: At specific workstations, uncheck the “Visible” property of specific database fields from the Field Definitions Edit window. Those fields will not be visible to anyone, regardless of the user’s application permissions.
3. “Multiple field definitions files” security: In a large network running a variety of configurations of Identifier for Windows, create specific “field definition files” for each configuration. (For example, you may have a number of “data entry,” “guard station verification,” and “printing” workstations with each needing to have a customized display of data. Rather than edit each database field at every workstation, “import” a single “field definition file” appropriate for that workstation which modifies database display in one step. (See “Multiple Field Definition Files” immediately below.)

Multiple Field Definition Files

Customizing database fields for a networked environment takes careful planning.

You must know which fields must be visible or hidden at specific workstations, and if specific field formatting is required at different sites. For example, if several “guard verification stations” are to be restricted from viewing certain information in the database, then a “field definition file” needs to be created which hides that data. Or if a number of “data entry stations” need to have certain fields color coded to ease data entry, then a “field definition file” must be created specifically for them. A “field definition file” is a text file containing a list of database fields, plus each field’s “properties,” created when you click an *Archive field definitions* button. (See below.) You may create as many “field definition files” as your needs require. You will then restore or “import” these “field definition files” at the appropriate workstations; the workstation-specific modifications will now be displayed on those PC’s after you rebuild the database. The next paragraph will explain how to do this; a description of the buttons it refers to immediately follows.

From any workstation, enter the Field Definitions Edit window by clicking *Edit field definitions*. Make any changes you require for your “master” database (that is, create, delete, or modify the fields that you want to use for your database). Click *Back* to exit the Field Definition Edit window and click *Archive field definitions* in the Database Design window. A standard Windows “Save dialog” appears in which you enter a name and directory for this master “field definitions file.” Now return to the Field Definitions Edit window and modify the field definitions for a workstation whose view of the data will be different in some manner (hidden/visible fields, colored text, input masks, etc.). Exit the Field Definitions Edit window and again click *Archive field definitions* in the Database Design window to save this modified “field definition file.” Return again to the Field Definition Edit window to create additional “field definition files” for as many workstations as your needs require. Then, at each workstation, restore or “import” the appropriate “field definition file” using the *Restore archived field definitions* button and rebuild the database by clicking the *Build new database and forms* button.

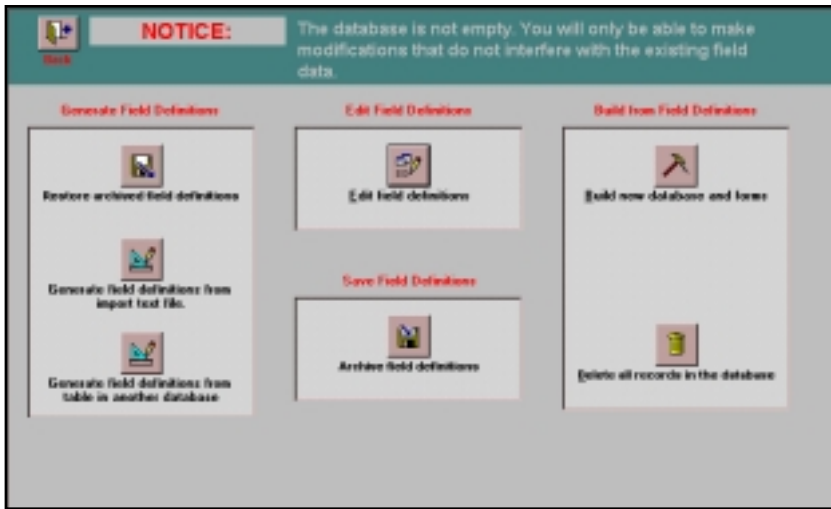


If you are running IDentifier for Windows in a “stand alone” environment, you do not need to create “field definition files.” Simply change the existing fields and their properties to suit your needs and rebuild the database and forms using the *Build new database and forms* button.

Let’s now take a closer look at the Database Design window.

Database Design Window

The Database Design window contains a number of buttons, each designed to perform a specific function.



Generate Field Definitions buttons

Restore archived field definitions If you want to make the database on one PC use a specific representation of database fields stored in a field definitions file, click *Restore archived field definitions* to bring up a standard Windows open dialog in which you navigate to an archived field definition file. Restoring field definitions is like importing records: you are importing "fields" and "field properties" into the database of a single PC. In addition to the "field definitions," the "restore" function also restores the bar code, mag track and custom "expressions" created in the Configuration window. After restoring or "importing" the fields, you will rebuild your IDentifier for Windows database to display those new fields.



Generate field definitions from import text file If you exported data from another database and want to use that data and its fields in IDentifier for Windows, click *Generate field definitions from import text file*. A standard Windows open dialog box appears. Navigate to and select the database text file you want to import. An alert window asks you to confirm your decision. If you click *OK* in this window, IDentifier for Windows will read and import the first line of the import text file. Note: the first line of the import text file must



contain the actual field names. Field names in this file must be one word and separated from each other by commas. Note also: good practice suggests that your "export routine" enclose field data within quotation marks so that commas appearing in, for example, a "Company" database field (e.g., "The Gap, Ltd.") will not be construed as a field delimiter. (See graphic on page 140 for an example of the required "first row" in an import text file.) After generating the fields and field properties from the import text file, click *Edit field definitions* to confirm that the field properties meet your needs.

Generate field definitions from table in another database If you wish to use the "fields" and "field properties" of an existing Microsoft Access database, click *Generate field definitions from table in another database*. A standard Windows "open dialog" appears in which you navigate to and select an Access ".mdb" database file. Once you have selected the Access database file, a second window appears in which you may select the specific table containing the database fields you wish to use. After generating the fields and field properties from the database file, click *Edit field definitions* to confirm that the field properties meet your needs.



Edit Field Definitions button

Edit field definitions This button takes you immediately to the window in which you may edit IDentifier's current database fields.



Archive Field Definitions button

Archive field definitions This button will create a text file containing all the information about your existing database fields and their properties, plus the "expressions" you created for bar code and mag track fields in the Configuration window. That is, it will identify each field and its "label," "size," "input mask," and other properties and write it to two text files with ".fdf" and ".fxf" file extensions.



Build from Field Definitions buttons



Build new database and forms If you made any changes to the database fields, the forms must be rebuilt before they are visible in the Search and Persons Found windows. Clicking *Build new database and forms* will re-draw the database forms to reflect the addition of new fields or changes in field properties you have made.



Delete all records in the database Certain changes to the database, such as deleting individual fields or editing certain field properties such as the field “name” or “type” require that the database contain no records. Clicking *Delete all records in the database* will delete the records so the changes you wish to make are permissible. This operation is irreversible! If your database contains records you do not want to lose, first export your data using the Export command in the Tools window. Only after you have safely exported your data should you click *Delete all records*...You will receive two warnings before the records are deleted.

How to Edit Database Fields



Click *Edit field definitions* in the Database Design window. The Field Definitions window appears. Depending on whether or not your database contains records, three or four buttons are present at the top of the window.



Swap Up

Clicking *Swap Up* makes the currently selected database field move up the order it appears in the Search and Persons Found windows. (A “record selector” arrow appears beside the currently selected field in the left margin of the window.)



Swap Down

Clicking *Swap Down* makes the currently selected database field move down the order it appears in the Search and Persons Found windows. (A “record selector” arrow appears beside the currently selected field in the left margin of the window.)



Create

Clicking *Create* makes a new database field appear at the end of the scrolling list of fields.



Delete

Clicking *Delete* (this button only appears if the database contains

no records) deletes the currently selected field. (A “record selector” arrow appears beside the currently selected field in the left margin of the window.)

Label	Field name	Visible	Type	Size	Required	Index / search	Field format
SS No	SSNo	☒	TextList	11	☐	Unique Index-nulls OK	
Last Name	LastName	☒	Text	30	☐	Index-duplicates OK	
First Name	FirstName	☒	Text	30	☐	Index-duplicates OK	
Middle	Middle	☒	Text	20	☐	No Index	
Status	Status	☒	TextList	20	☐	Index-duplicates OK	new, reissue, expired, lost
Birthdate	Birthdate	☒	Date	10	☐	No Index	
Sex	Sex	☒	Text	1	☐	No Index	

If your database contains no records, all the fields’ properties may be edited. (All the “property fields” have a white background.) Add, delete or re-order fields using the *Swap*, *Create*, and *Delete* buttons. Edit the properties of the individual database fields by entering or selecting appropriate values.

If your IDentifier for Windows database contains any records, the “field name,” “field type,” “size,” “required,” and “indexed” properties are disabled...they cannot be edited until you have deleted any existing records. Though you may *create* new fields, you cannot delete existing fields. If you wish to delete fields or edit any of these properties, first delete any existing records. *Tip: Before you delete your records, consider exporting them to an ASCII text file using IDentifier’s Export function. You may later import them back into your edited database.*

When you are finished customizing the fields and properties, click *Back* to return to





the Database Design window. Before your changes are visible, you must click *Build new database and forms*. IDentifier for Windows will redraw the Search and Persons Found windows, and your changes will appear.

Chapter Five: The Search Form (“home”)

When you first launch IDentifier for Windows, IDentifier’s “home page” appears. Most of IDentifier’s commands and functions are “button driven.” That is, the most commonly used functions such as printing, searching, capturing images, etc. are initiated by clicking an easily identifiable button. The “home page” offers the following buttons:

The screenshot shows the IDentifier for Windows home page. At the top, there is a teal header bar containing six buttons: 'Exit' (red circle with a white X), 'Search' (magnifying glass), 'Erase all' (eraser), 'Create' (plus sign), 'Password' (key), and 'Tools' (wrench and screwdriver). Below the header, the main area is light gray. It features three input fields at the top: 'Badge no:' (text box), 'Ad hoc field:' (dropdown menu), and 'Value:' (text box). Below these are six more input fields stacked vertically: 'SS No', 'Last Name', 'First Name', 'Status', 'Company', and 'Department'. At the bottom, there is a teal footer bar. It contains two input fields: 'SQL WHERE clause:' and 'SQL ORDER BY clause:'. To the right of the 'SQL WHERE clause:' field is a button labeled 'Set SQL from predefined report'. To the right of the 'SQL ORDER BY clause:' field is a button labeled 'Add field to ORDER BY clause'.

Exit

The *Exit* button is used to exit IDentifier for Windows. Always use *Exit* to exit IDentifier for Windows rather than the standard Windows “close” boxes at the corner of the windows; failure to do so may leave temporary files open, wasting disk space and RAM.



Search

The *Search* button initiates a query of the database based on the



search criteria you enter in the text fields below.



Erase

The *Erase* button erases all the search criteria previously entered so you may quickly begin a new query.



Create

The *Create* button immediately presents an empty database record so you may enter new personnel data.



Password

The *Password* button allows the Identifier for Windows user to change his or her logon password. (For security reasons, frequent changes in user passwords is highly recommended.)



Tools

The *Tools* button takes you to an area where Identifier's "tools" are located, e.g., setting application preferences, designing ID badges, importing and exporting data, etc.

In the main body of the "home page" are "Search fields." When you first install Identifier for Windows, the "Search fields" are pre-defined. At any time you may add or delete fields from this Search window by adding or deleting the Index property of your database fields. (Refer to "Chapter Four: Database Design.")

Searching for Records

You may search for an *individual's* record or *groups* of records using the Search window. Identifier for Windows offers four methods for performing searches:

- Searching with Indexed fields
- Searching with the "Ad Hoc" field
- Searching with SQL
- Searching with Report Queries
- or any combination of the above

The indexed search fields appear in the top left of the Search window and are named "SS No," "Last Name," "First Name," "Status," "Company," and "Department." (The fields in this window may be different if you deleted or changed the Index property of fields in the Database Design module of Identifier for Windows.) The ad hoc field is a drop down list box labeled "Ad

Hoc” which lists every field in the database. The SQL search and sort fields appear at the bottom of the window only if SQL has been enabled in IDentifier’s Configuration window.

Searching with Indexed Fields

The text fields displaying in the top left of the Search window are indexed for faster searches. When a field is “indexed,” Microsoft Access creates a hidden list of the contents of this field for every record in the database. It can find data faster by looking first in this “index” rather than having to “physically” search each record for the data. You may index any field in the database (see “Chapter Four: Database Design”); all indexed fields appear as text fields in the Search window.

SS No	
Last Name	
First Name	
Status	
Company	
Department	

Enter a “value” (text, date or number) that is unique to the individual for whom you are searching in the corresponding search field. (For example, type the person’s social security number in the “SS No” field.) After entering this unique value in the search field, click *Search*. The individual’s record appears in the resulting Persons Found window. If you know a unique value for an individual, your search will always be successful. If you do not know these unique values, you will need to use other fields to perform your search. In a small database you might be able to successfully find the person named “Ernesto” by typing “Er” in the First Name field. In a large database, however, typing “Er” might also find all the “Ernie’s,” “Ernest’s,” and “Ernestine’s,” etc. Therefore, to find only “Ernesto,” you might need to enter his entire first name, last name, and possibly date of birth as well, in the corresponding fields. If you do not know an individual’s unique value, enter as much information in appropriate fields as you can. The more data you enter, the more likely the search will yield the individual for whom you are looking. Searches in these fields use Microsoft Access’ “like” operator (which finds records containing data “like” that which is entered), so it is not necessary to enter the complete word. But entering partial information in



the Value field may find more records than you intended.

If more than one record matched the search criteria, the “record status bar” at the bottom of the window indicates how many records were found. Click the left or right arrows to advance forward and backward through the found set of individuals (or use the Page Up and Page Down keys on the keyboard) until you find the one for whom you are looking.



Searching with “Ad Hoc”

You may perform a search of any field in the database using the “Ad Hoc” drop down list to the right of the indexed search fields. The Ad Hoc fields are *not indexed* so the search may take a little longer depending on the size of your database. Select a field from this list and type in the search criteria in the “Value” field to the right. Searches in this field use Microsoft

A gray rectangular window. On the left, under the label "Ad hoc field:", there is a vertical list box. The list contains the following items: IDNumber, SSNo, LastName, FirstName (which is highlighted with a black background and a white mouse cursor), Middle, Birthdate, Sex, and Address. On the right, under the label "Value:", there is a text box containing the word "David".

Access’ “like” operator (that is, it finds records which contain data “like” that which is entered), so it is not necessary to enter the complete word. But entering partial information in the Value field may find more records than you intended.

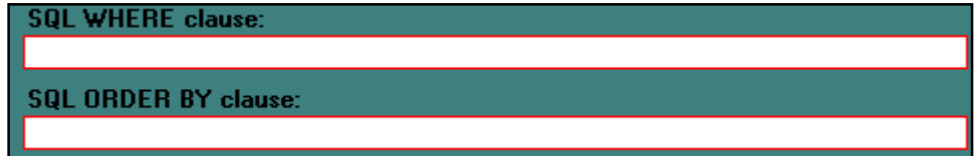
You may also enter SQL expressions in an Ad Hoc search field (see “Searching with SQL” immediately below). *SQL “arguments” in the Ad Hoc field must begin with an equal sign (=).* Once the equal sign is entered, the search is no longer based upon Microsoft’s “like” function; a search for “wil” will *not* find “Wilson.”

If more than one record matched the search criteria, the “record status bar” at the bottom of the window indicates how many records were found. Click the left or right arrows

to advance forward and backward through the found set of individuals (or use the Page Up and Page Down keys on the keyboard) until you find the one for whom you are looking.

Searching with SQL

If you checked the option “Enable SQL statements” in IDentifier’s Configuration window, two separate fields display at the bottom of the Search window. The first field, “SQL WHERE clause,” allows you to use a variety of “SQL” (Structured Query Language) search functions. (Appendix B shows examples of common Microsoft Access SQL expressions.) The second field, “SQL ORDER BY clause,” instructs IDentifier for Windows to sort the search results by the field entered in this text box.

The image shows a screenshot of a software interface with two stacked text input fields. The top field is labeled "SQL WHERE clause:" and the bottom field is labeled "SQL ORDER BY clause:". Both labels are in a bold, dark font. The input fields themselves are white with a thin red border. The background of the labels is a dark teal color.

Note: There may be instances when you inadvertently enter an invalid SQL search string. Microsoft Access may act “disagreeably” to your query and present error messages to the effect that it cannot perform the search you requested. If you find yourself in a “loop” of error messages, simply press the Escape key on your keyboard. This will “clear” the query from memory and allow you to start over.

A simple SQL query is essentially a search for “matches” in which you specify 1) the database field in which you want to look for a “match,” and 2) the data (or “value”) that you want “matched.” Such a simple SQL query might look like this:

LastName = “Wilson”

“LastName” is the actual name of a database field; “Wilson” is the actual data or text that you want to “match.” (In these SQL fields, dates must be enclosed within pound signs (#) and text must be enclosed within quotation marks (“ ”). Text is *not* case sensitive.) Such a query can be thought of as a single “argument.” There is just one match or argument being tested: are there any records in which data in the LastName field equals “Wilson?” When you click

Search, Identifier for Windows will produce all records that match “Wilson.” Note that though the indexed and ad hoc search fields use Microsoft’s “like” operator, the SQL search field uses the “=” (equal) operator. You cannot enter partial data; you must type the entire name “Wilson” to find “Wilson.”

Very powerful queries can be created by concatenating or adding together a string of “simple queries” using the “AND” and “OR” functions. For example, if you know that there are many “Wilsons” in your database, you can narrow the search by entering:

```
(LastName = "Wilson") AND (CreateDate < #1/1/96#) AND (Department = "Engineering")
```

The example above is designed to *narrow* the search. In plain English, it says, “find any records where ‘Wilson’ appears in the LastName field, and the record was created before January 1, 1996, and ‘Engineering’ appears in the Department field.” Microsoft Access will perform a query on the database and return the record(s) which “match” all three arguments.

Use of the “OR” function, on the other hand, tends to *widen* the search. If “AND” is replaced by “OR”:

```
(LastName = "Wilson") OR (CreateDate < #1/1/96#) OR (Department = "Engineering")
```

the search would find all records where *any one of the simple arguments* was true. That is, it would find all records where the last name was Wilson, PLUS all records which were created earlier than January 1, 1996, PLUS all records where “Engineering” appears in the Department database field.

You can combine “And” and “Or” in an SQL expression. Use parentheses () to enclose the different parts of your query. For example:

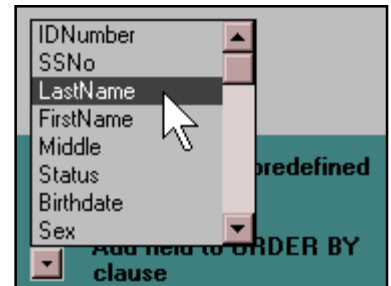
```
(LastName = "Wilson") OR ((CreateDate < #1/1/96#) AND (Department = "Engineering"))
```

Type in the “SQL Where clause” field a field name exactly as it appears in the database, followed by a Boolean operator (e.g., <, >, =, And, Null, etc.), and the data (e.g., “Wilson”).

Tip: If you cannot remember the exact name of a database field, click the down arrow beside the “Add field to ORDER BY clause”...A pop-up list of every field in the database appears. Scroll to the field in question and note its correct name and spelling.

Sorting with SQL SORT BY

If you know your search will generate multiple “matches,” you may sort the results alphabetically or by date (depending upon which field type you use for the sort). Type a field name in the SQL ORDER BY clause field, or select the sort field using the pop-up “Add field to ORDER BY” box. Identifier for Windows defaults to sorting the search results in ascending order. If you wish to sort the results in *descending* order, type a space after the field name, followed by “desc” (e.g., LastName desc).



Searching with Report Queries

In addition, you may easily perform searches based upon the queries you created in the Reports window. Click the *Set SQL from predefined report* button to pop-up a list of your Reports. The search and sort criteria used in the selected report will be inserted into the “SQL Where clause” and “SQL ORDER BY clause” fields.





To clear all the data in the search fields, click *Erase All*.



After entering the search criteria, press Enter on your keyboard or click *Search*.

Chapter Six: The Persons Found Form

After performing a search for one or more records, IDentifier for Windows brings you to a Persons Found window. This window displays the result of your search. At the top of this window are easily identifiable buttons:


Back


Display


Preview


Create


Edit


Delete


Print


Capture


History


Batch ops

Badge no:

Version:

Badge type:

SS No

Last Name

First Name

Middle

Status

Birthdate

Sex

Address

Address2

City

State

Zip

Record Identifier: 23

Create date: 06/18/1998

Change date: 03/29/1999

Image date: 04/30/1996

Image ID: 1006

Operator: david

Print count: 0

Print date:

Company

Department

Title

Classification

Issue Date

Exp Date

Back

The *Back* button returns you to the previous window, the Search or “home page.”



Display

The *Display* button displays captured images for the individual. Note: If you captured portraits, fingerprints and signatures, but later deselected fingerprint and/or signature in ID Setup, the deselected images will not display. Also, if you specified more than one Instance” of por-



trait, fingerprint or signature capture in ID Setup, but “canceled out” of any of the image captures, some display windows may appear blank with a red “X” in them—denoting that an image was not captured.



Preview

The *Preview* button displays a preview of the individual's ID badge.



Create

The *Create* button creates a blank record in which to immediately enter new data. When you click *Create*, the *Create* button turns into a *Save* button. Clicking *Save* saves the record.



Edit

The *Edit* button enables editing a record's data. Until you click *Edit*, the database fields are “grayed out”—un-editable. If you click *Edit*, the *Edit* button turns into an *Undo* button. Clicking *Undo* removes the last action taken in a database field.



Delete

The *Delete* button deletes the current record. You are given a warning to confirm the deletion before the record is actually deleted.



Print

The *Print* button sends the current record's badge to the printer. Depending on specific options you selected in the Printer Options dialog of ID Setup, the badge may be printed immediately or sent to a print queue.



Capture

The *Capture* button initiates image capture. You will be presented with as many “capture windows” as you specified in ID Setup (e.g., 2 portraits, 10 fingerprints, 1 signature, etc.)



History

If you enabled “History” in Identifier's Configuration window, a *History* button presents a history of badges issued and all actions performed on the current record. (Identifier for Windows will not start logging “events” until after the History option is enabled.)



Batch Operations

The *Batch Operations* button allows you to perform edits, prints and deletes on more than one record at a time.

Create and Edit Records

Click *Edit* to change data in an existing record, or click *Create* to create a blank record to enter data for a new individual. Use the “Tab” or “Enter” keys to move from one field to another. (Use “Shift-Tab” to move the cursor backwards through the fields.) Alternately, you may mouse click in the field in which you wish to enter information. When your cursor is in a “drop-down” field—a field whose arrow on the right side indicates that a drop-down list is available for additional options—you may click on the down arrow or press “Alt-↓” to make the list of choices available. Begin entering the individual’s information.



When you have finished entering information, click *Save*. If you change your mind and do not want to create or save the record you are editing, click *Undo* at the top of the window. An alert message asks if it is OK to “lose the changes” you made. If you do not want to save the data you entered, click *Yes* to return to Identifier’s “home page.”



If, after saving a record you discover you must add, delete, or change data, click *Edit* again. The text fields are now editable. When done, click *Save* to save your changes.

If you want to delete a record, click *Delete*. A warning appears onscreen asking you to confirm your choice, and offers the option to delete the record’s images as well.



Print Badges

Depending on whether or not you chose “Use Batch Printing” in the Printer Options dialog of ID Setup and which option you selected for “Batch Queue Mode,” the following occurs when you click *Print*:

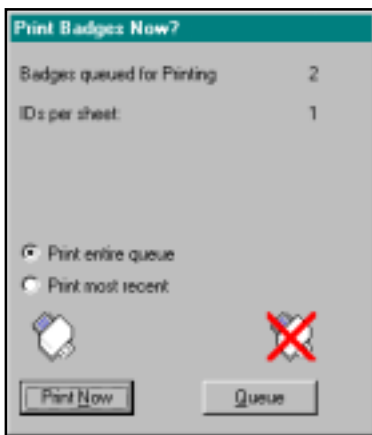


1. *If you did not select batch printing:* the individual’s badge prints immediately.
2. *If you selected batch printing—Always Ask:* a dialog box prompts you to print the badge now or queue it.
3. *If you selected batch printing—Auto Print:* if Sheet Printing *is not* enabled, the badge prints immediately. If Sheet Printing *is* enabled, the card is queued until the page is filled with cards. (Use the Sheet Layout dialog in ID Setup to determine

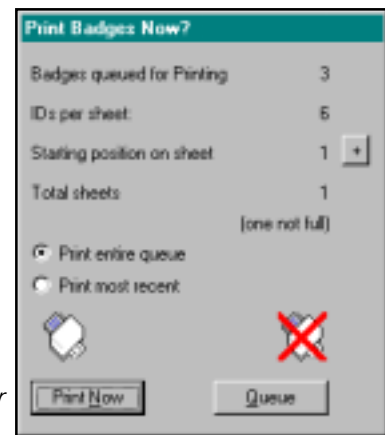
how many cards are printed on a single sheet of paper—when that number of cards is reached in the queue, the page automatically prints.)

4. *If you selected batch printing—Always Queue:* the badge is sent to the queue awaiting your instruction to print the contents of the queue.

When you select “Always Ask” as a batch option in the Printer Options dialog of ID Setup, clicking *Print* displays a dialog box offering two choices: *Print Now* and *Queue*. If you click *Queue*, the badge you just commanded to print is sent to the queue awaiting your print instructions. If you want to *Print Now*, you can choose to print only the one badge for which you just clicked *Print*,



If printing to a card printer



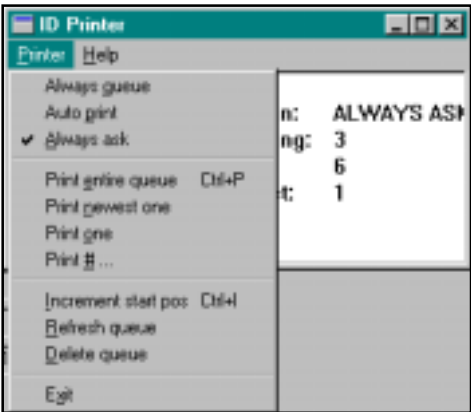
If printing to a Sheet printer

or print all the badges currently held in the queue. Select either *Print entire queue* or *Print most recent*, then click *Print Now*. (In real world terms, you might have a batch of badges held in queue for printing. But the boss walks in and wants his or her ID badge printed now. When you call up that record and click *Print*, this window allows you to print *the most recent* print request (the boss') without waiting for all the other badges to print). If “Use Sheet Formatting” is enabled, this dialog will also allow you to specify where on the sheet layout the queued badges will begin to print. (This allows you to “re-use” a pre-printed badge form if several panels on the form have already been used.) Click the “+” to advance the starting position on the sheet.

ID Print

When you click *Print* (or *Add to queue* from the Batch Operations window), Identifier's

“Batch ID Print” program launches in the background; its program icon is minimized on Window’s Task Bar. Selecting Batch ID Print brings the application window to the front. In the Batch ID Print window, you may pull down the Printer menu to select a variety of print options.



Always queue This is the same option you set in the Printer Options dialog of ID Setup. With this option selected, badges will always be sent directly to the print queue to await later printing.

Auto print This is the same option you set in the Printer Options dialog of ID Setup. If Sheet Printing is not enabled, the badge prints immediately. If Sheet Printing is enabled, the card is queued until the page is filled with cards.

Always ask This is the same option you set in the Printer Options dialog of ID Setup. With this option selected, a dialog box prompts you to print the badge now or queue it.

Print entire queue Selecting this will immediately print the contents of the queue.

Print newest one Selecting this option prints the most recent print request. This allows you to print one badge while leaving the remaining badges in the print queue for later printing.

Print one Selecting this option prints the first badge in the print queue. (If

badges “1,” “2,” “3,” “4,” and “5” were queued for printing, the first time you select “Print one,” badge “1” is printed. The next time you select “Print one,” badge “2” will be printed, and so on.)

Print #...

Selecting this option allows you to print a specified number of badges currently held in the print queue. Selecting it brings up a dialog in which you enter the number of badges to print. If you selected “Use Sheet Formatting” in the Printer Options Dialog of ID Setup, note that the “number” refers to the number of pages to print, not individual badges.

Increment start position

This option is only enabled if you selected “Use Sheet Formatting” in the Printer Options Dialog of ID Setup, and allows you to specify where on the sheet layout the queued badges will begin to print. (This allows you to “re-use” a pre-printed badge form if several panels on the form have already been used.)

Refresh queue

This option refreshes the queue to reflect changes due to the completion of printed badges.

Delete queue

Selecting this option will delete the contents of the print queue.

Exit

Selecting *Exit* quits the ID Print program. It will automatically restart the next time you send a badge to the print queue or instruct Identifier for Windows to print a badge. NOTE: The queue must be empty before changing from sheet printing to card printing.

Capture Images



After you have entered and saved all the textual information for an individual, click *Capture* to take his or her picture. This initiates the procedure for taking portrait, signature and fingerprint images used in the creation of the ID badge. The *Capture* button remembers your settings from ID Setup in which you specified which hardware “capture” devices you are using, and how many images of each type you wish to capture. If you only checked the “Portrait” option in ID Setup, *Capture* prompts you to take a portrait. If you checked the fingerprint and/or

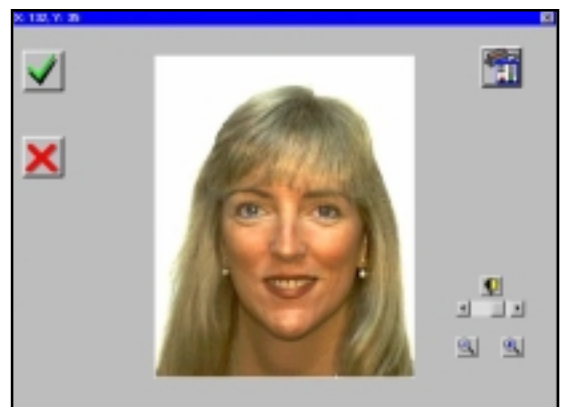
signature options in ID Setup, you will be prompted, in turn, to take each of those images.

(If you are using capture hardware based on a TWAIN or Video for Windows interface, an important departure from the discussion which follows must be noted. TWAIN and Video for Windows are types of “interfaces” or “protocols” allowing computers to “communicate” with video and other imaging hardware devices (such as scanners or digital cameras). If you are using Video for Windows or a TWAIN device and have configured IDentifier for Windows for that device in Setup ID Server, the moment you click *Capture* in the Persons Found window you are launched into the TWAIN or Video for Windows software. Your image capture options are then executed *outside* of the IDentifier for Windows environment. Only after you click “save” or “transfer” from your TWAIN or Video for Windows software are you returned to the IDentifier for Windows application.)

Portraits

Ask the individual to sit in a chair in front of the video camera. Click *Capture* in the Persons Found window. The portrait light automatically turns ON and a new window appears showing live video of the person. The video camera automatically focuses on his or her image.

To the left of the live video image are two buttons: a green ✓ and a red ✕. The ✓ button is used to “freeze” the live video as a still picture. The ✕ button is used to “unfreeze” the image and return to live video. To the right of the video image are several additional but-



tons: *Zoom Out*, *Zoom in*, *Back light*, and *Video Control*.



Zoom control

Zoom Two small icons of magnifying glasses control the zoom features. The “-” and “+” buttons control zooming-out and zooming-in. Clicking either button begins the zoom. Clicking the button a second time stops the zoom and holds the picture at that new level of magnification. (If “Number Lock” on your keyboard is OFF, the “+” and “-” keys on the numeric keypad also control the same functions.) Once you set the zoom (how much of the person’s face fills the frame), you may manually center the image by clicking and dragging anywhere within the video field, repositioning the image. Typing “5” on the numeric keypad returns the image to its original position. Make any adjustments desired to center the person’s image within the video field.



Backlight Control

Back light The back light control is manipulated using the left- and right-arrows of the *Back light control* slide. Clicking the left arrow decreases back lighting. Clicking the right arrow increases back lighting. Adjust until you are satisfied with the video image. (Do not use back lighting adjustments with a flash lighting setup.)



Video Control

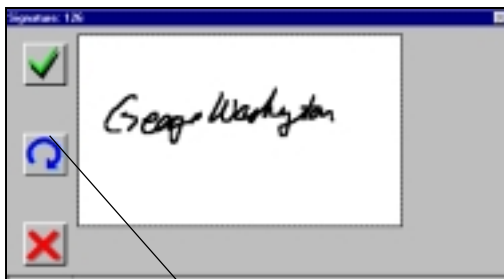
Video Control Panel The video control panel button brings up the FlashPoint setup window allowing you to adjust various capture settings. (See “Capture Options and Device Setup” on page 50f. for details.)

With the individual’s image centered in the video field, and the color and brightness satisfactorily set, click ✓ freezing the video image. The ✓ button turns into a icon. This indicates that clicking it will save the image to your disk. If the image is acceptable, click . If you enabled the “Brightness/Contrast” option (in the Capture Options portion of the Graphics Definitions dialog of ID Setup), a second video window appears enabling you to adjust the image’s brightness and contrast. Drag the Brightness and Contrast slide bars to achieve the desired effect. (Reset the Brightness and Contrast levels to the original setting by clicking the miniature icons to the left of each slide bar.) Click in the Brightness/Contrast window to save the portrait to disk. If you are not satisfied, click ✕ to cancel the image capture and return to live video. Repeat the steps above until you capture a good image. The image is saved to the Portrait Folder within the ITC directory unless you specified a different location on your hard drive or network.

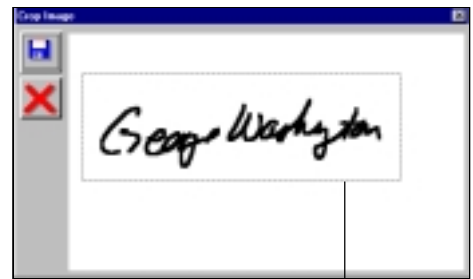
If you enabled multiple portrait captures in the Portrait Graphics Definition dialog of ID Setup, the specified number of portrait capture windows will be presented.

Signatures

After saving the portrait(s), the signature capture screen appears. In addition to the ✓ and ✕ buttons, a *Re-Do* button is added, allowing you to re-do the signature. Have the individual sign his or her name firmly on the signature pad using the special stylus. The signature appears in the signature window. If the signature is satisfactory, click ✓. Immediately after saving the signature image, a cropping window with two gray lines appears. Positioning your mouse between these lines changes the pointer to a four-sided arrow. Drag the gray lines up or down, enclosing the person's signature. Click on the left or right hand corner of the cropping box, re-sizing it to more closely enclose the signature. (The area inside the "cropping box" adopts the width and height parameters you established in the Signature Graphic Definition dialog of ID Setup.) Remember, you can adjust the thickness of the "pen." (Return to the Tools window and click *Configuration Management*. Click *Setup*



re-do button



cropping window

ID Server, then click *More* beside the Signature option and see "Device Setup" where you may reset the thickness of the "pen.")

If you enabled multiple signature captures in the Signature Graphics Definition dialog of ID Setup, the specified number of signature capture windows will be presented.

Fingerprint

After the signature has been saved, the fingerprint capture window appears. Follow the steps above to capture and save the fingerprint.



History button



If you enabled History in the Configuration window, a *History* button appears in the Persons Found window. Clicking *History* presents a window displaying two *kinds* of history: *specific actions taken on a record* (such as text edits, dates of image capture or badge printing) and *history of badge issuance*. (Nothing displays in the Badge History window until the individual's card has been printed at least once.)

When you first arrive at the History window, the "badge history" window is displayed. ("Badge History Form" appears in the window's title bar.) A "record count" indicator at the bottom-left corner of the window indicates the number of times a badge has been printed. The first record (indicated by a number one in the record indicator) refers to the *most recently printed* badge. As you scroll through the records, fields whose data has changed from the *current record* are highlighted in orange. A *Preview* button allows you to view each version of the individual's badge; "old" data is displayed in the preview window exactly as it was originally printed.

Back Record detail history Preview

Badge no: Version: Badge type: default

Badge History

Record Identifier: 23
 Create date: 8/18/98
 Change date: 9/30/99
 Image date: 9/30/99
 Image ID: 1
 Operator: user
 Print count: 4
 9/30/99

Personal No. Last Name: Polacio
 First Name: Mara
 Title: Technical Support Specialist
 Company: United States of America
 Address: Address: USA
 Tel.:

Notes: Passed last evaluation
 Issue Date: 7/2/96
 Exp Date: 7/2/98

Record: 14 of 4 (Filtered)

click here to review the "history" of changes

Badge History Form

To view the history of actions performed on a record, click the *Record detail history* button at the top of the window. ("Record History Form" appears in the window's title bar.) Each row in the scrolling window that appears (see graphic on next page) reflects an event or change in a database field (such as image capture, badge print). Note that events recorded here may not be reflected in the Badge History window if a badge was not printed with that change or event. That is, if the record's last name was changed from "Smith" to "Jones," but the badge had not yet been printed with the new name "Jones," the change would be reflected in the History Form but not the Badge History Form.

The following information is recorded in the record's history:

Date

This is the date the action was performed. To sort the history by date, click the *Date* button. Click *Date* again to sort by date in

 					
Date	Workstation	Operator	Operation	Description	
9/30/99 3:32:49 PM	pentium200	user	PRINT	BadgeType=default, BadgeNumber/Version=1/0	
9/30/99 3:32:06 PM	pentium200	user	CAPTURE	ImageID=1	
9/30/99 3:31:54 PM	pentium200	user	EDIT	Field=Notes, -> Passed last evaluation	
9/30/99 3:31:36 PM	pentium200	user	EDIT	Field=Title, Technician -> Technical Support Specialist	
9/30/99 3:22:14 PM	pentium200	user	PRINT	BadgeType=default, BadgeNumber/Version=1/0	
9/30/99 3:21:21 PM	pentium200	user	PRINT	BadgeType=default, BadgeNumber/Version=1/0	
6/24/99 5:17:05 PM	solo2500	user	CAPTURE	ImageID=1	
6/24/99 5:16:17 PM	solo2500	user	CAPTURE	ImageID=1	
6/18/99 9:09:23 PM	solo2500	user	PRINT	BadgeType=default, BadgeNumber/Version=1/0	

History Form

reverse order.

Workstation

This is the name of the workstation where the action was performed. In a networked environment, each workstation has a unique name. To sort the history by workstation name, click the *Workstation* button. Click *Workstation* again to reverse the sort order.

Operator

This is the user name of the operator who performed the action. (The user name is the name entered at login.) To sort the history by user name, click the *Operator* button. Click *Operator* again to reverse the sort order.

Operation

This identifies the action that was performed in the record. Click the *Operation* button to sort the history by operation. Click *Operation* again to reverse the sort order.

Description

This offers a more detailed description, where applicable, of the operation that was performed. Click the *Description* button to sort the history by description. Click *Description* again to reverse the sort order.

Batch Operations

Clicking *Batch Operations* brings up a Batch window for performing actions on a group of records. The following “batch operations” are available: **Update, Delete, Add to Print Queue, and Print the Queue.** These “batch operations” only effect the “found set” of records. That is, you must first perform a “query” or “search” for the group of records you want to do something with. Only the records that “have been found” as a result of the query will be acted upon.



Update

“Update” is a powerful feature, allowing you to change a value for a group of records in one step. There are two ways to update records:

1. If a record contains the correct information that you want updated across the “found set” of records, click once in the field containing the correct information. Then click *Batch Operations* in the Persons Found window. (The field name and field contents are displayed in the Batch window.). Click the *Update all selected*

records button in the Batch window. Identifier for Windows presents an alert message asking you to confirm the changes.

2. Click *Batch Operations* in the Persons Found window. In the Batch window, click the down arrow of the “Field name” field and select the database field to update. Type the “value” you want updated in that field for the “found set” of records. Then click the *Update all selected records* button. Identifier for Windows presents an alert message asking you to confirm the changes. (The *Update all selected records* button is disabled until you select a field for updating.)

Delete

Click *Delete all selected records* to delete the “found set” of records plus their associated images. An alert message appears asking you to confirm the deletion. Use extra caution! Once the records are deleted, they cannot be restored except from a backup source.

Add to print queue

Click *Add to print queue* to add the found set of records to the print queue. The badges will remain in the print queue until you click *Print the queue*.

Next to the *Add to print queue* button is an “Override badge type” pick list. You may use this to print a badge other than what has been assigned the individual(s) in the Persons Found window. For example:

If you want to issue a temporary badge to a select group of individuals, select that “temporary” badge from the list. When you add the selected records to the print queue and print the badges, the specified badge will print, rather than the one previously assigned to them.

If you created a “badge” design which in actuality is a “roster” printing 30 records to a sheet, you may select this badge layout and print the selected records as a roster.

Print the queue

Click *Print the queue* to print the contents of the print queue. (Note: you may print the contents of the print queue both here and from within the Tools window.)

Record History

In the top right of the Persons Found window are non-editable fields displaying history information for each record.

Record History	
Record Identifier:	23
Create date:	8/18/98
Change date:	9/30/99
Image date:	9/30/99
Image ID:	1
Operator:	user
Print count:	5
Print date:	9/30/99

Record Identifier This is a unique number assigned to each record as it is created.

Create Date This is the date the record was created.

Change Date This is the date of the last modification to the record.

Image Date This is the date of the most recent image capture.

Image ID This is the “name” of the image file(s). Identifier for Windows saves all images with a “number” name. To find a person’s image in Windows Explorer, search for this number in the Portrait, Signature and Fingerprint directories.

Operator This is the Identifier for Windows operator who most recently modi-

fied the record.

Print Count

This is a serial counter of the number of times a badge has been printed.

Print Date

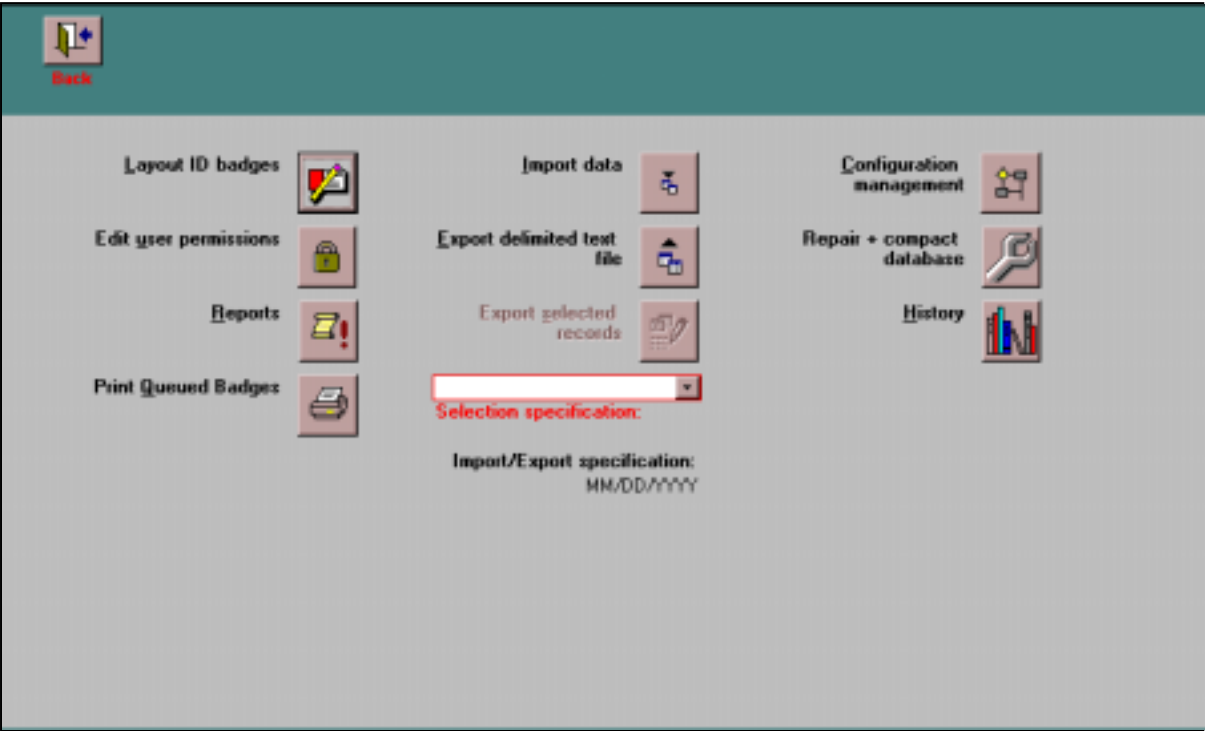
This is the date a badge was last printed for an individual.

This brief history can be hidden by clicking the orange title bar labeled “Record History.” Clicking it again restores the view.

Chapter Seven: The Tools Window

The Tools window is where IDentifier’s “tools” are located, e.g., importing and exporting databases, designing badge layouts, setting application preferences, etc. You arrive at the Tools window by clicking *Tools* in IDentifier’s “home” page.

The following window appears and allowing access to different application functions:



Back

Back returns you to IDentifier’s “home” page.



Layout ID badges

Layout ID badges opens a “badge design” window in which you may create your ID badges in a graphical window. See “Chapter Eight: Badge Design.”





Edit User Permissions

Edit user permissions takes you to a User Permission window in which you create “user accounts”—user names, passwords, and application privileges. See “Edit User Permissions” on page 32ff.



Reports

Reports takes you to a Reports window in which you may create, edit, and print reports. See “Chapter Nine: Reports.”



Print queued badges

Print queued badges will immediately print the contents of the “print queue”—if you selected “Batch print” in the Printer Options Dialog of ID Setup, clicking a record’s *Print* button sends the badge to the print queue instead of to the card printer.



Import data

Import data takes you to an Import window in which you have a variety of options for importing or updating data in your database.



Export delimited text file

Export delimited text file will export the entire database (text only) to a comma-delimited ASCII text file.



Export selected records

Export selected records allows you to export a specified set of records to a comma delimited ASCII text file. The *Export delimited text file* button is disabled until you tell Identifier for Windows which records you want to export. Use the *Selection specification* button immediately below to do this.



Selection specification is a “pick list” displaying your reports (see “Chapter Nine: Reports”). Selecting a report from this list will use its query to specify which records will be exported.

Import/Export specification

Import/Export specification is not “editable” in the Tools window, but it serves as a reminder to you what import or export specification you selected in the Configuration window. The Import/Export specification allows you to convert date formats from MM/DD/YYYY to DD/MM/YYYY from one database to another. It also allows you to convert the European semicolon (;) field delimiter to a comma (,).



Configuration management

Configuration management takes you to a Configuration window where you may establish your local and global application

preferences.

Repair and compact database *Repair and compact database* will immediately run Microsoft Access' repair and compact utility. It is recommended that you "repair and compact" your database at least weekly.



History *History* takes you to a History window where you may view a log of record and application events (see "Chapter Thirteen: History").



Chapter Eight: Badge Design

If you have used graphics or “draw” programs before, you will be comfortable with the many familiar tools in the Badge Layout module of IDentifier for Windows. If you have never used a drawing program, you will be pleasantly surprised at how easy it is to create aesthetic and functional layouts. IDentifier for Windows includes a sample badge as a model. Be creative. All that is required is that your images or graphics must be “digital”—that is, they must be graphic image files stored on your hard drive. If you have a company logo or favorite image and want to incorporate it into your badge layout, scan the image and save it to disk. You may now incorporate it into the badge layout.

Though you can create badge designs from scratch, it is more likely you will be reproducing pre-approved badge layouts used by your company. Either way, you will probably need to create a variety of badge designs reflecting various positions of the people in your organization. Color coding, for example, is one common feature distinguishing one type of badge from another. Special text or logos on a badge can reflect the range of “privileges” assigned to your employees. You will need to create multiple badges containing some common elements, as well as unique features. Each time you enter an individual’s information into the database, you have an opportunity to assign him or her the badge-type appropriate to their position.

The text and graphic images used in the badge layout are called objects. All objects can be shrunk, stretched and enlarged by clicking once on the object to select it, and dragging its “handle” (any of the four, tiny black squares appearing at its corners). An object can be moved by clicking and dragging it to a new location. (The pointer turns into a four-sided arrow.) In addition, IDentifier for Windows offers “multiple select” and “alignment” tools aligning multiple objects to each other and to the card itself. IDentifier for Windows supports cut and paste, so when multiple badge layouts are open you may easily copy images or text from one badge design to another.

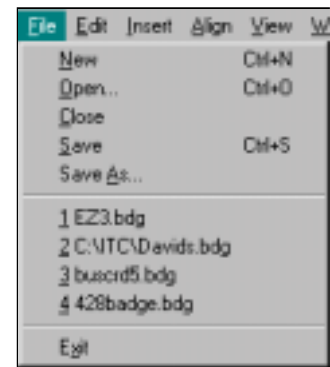
The following discussion first provides an orientation to the layout commands available on the menu bar. After that overview, instructions for placing objects on the badge layout will be provided.

Menu Commands

You will create the ID badges by clicking *Layout ID Badges* in the Tools window. ID Layout opens in a new window. Take a few moments to explore the menu commands. They will appear familiar, as they are standardized to the Windows environment. Pull down these menu items and read along.

The **File** menu offers standard Windows file management utilities:

<i>New</i>	Creates a new badge layout.
<i>Open</i>	Opens an existing badge layout.
<i>Close</i>	Closes the currently active open badge layout.
<i>Save</i>	Saves a newly created or edited badge layout.
<i>Save As...</i>	Saves a copy of the existing badge layout with a different name.
<i>Exit</i>	Exits ID Layout.



The **Edit** menu offers many standard Windows commands:

<i>Undo</i>	Returns an object to its state before the most recent action was taken.
<i>Cut</i>	Deletes an object from the layout and places it on the “clipboard” (the computer’s temporary memory).
<i>Copy</i>	Places a copy of an object onto the “clipboard” so it may be “pasted” or used again, while the original object remains on the layout.
<i>Paste</i>	Inserts the contents of the clipboard onto the badge layout.
<i>Delete Object</i>	Deletes an object from the layout, not from the hard disk. (When an



	object is deleted, it is not placed on the clipboard.)
<i>Select All</i>	Selects all the objects on the badge.
<i>Select None</i>	Deselects all previously selected objects.
<i>Badge Background</i>	Brings up a window allowing you to choose between one- or two-sided badge designs, use a solid color or graphic image for the badge's background, and instruct Identifier for Windows to send the data in the mag track fields to the printer for magnetic encoding (if your printer supports this).
<i>Object Property</i>	Brings up a "Property of..." window allowing you to change the characteristics of the selected object (e.g., change its size, color, rotation, etc.). (Double-clicking or right-clicking an object, or pressing Enter when the object is selected, also activates this command.)
<i>Move to Front</i>	Brings a selected object to the front of the badge layout when multiple objects overlap. Text always remains in the foreground. (Background images created with the "Badge Background" command always remain in the background.)
<i>Move to Back</i>	Sends objects to the back of the badge layout when multiple objects overlap. Text always remains in the foreground. (Background images created with the "Badge Background" command always remain in the background.)
<i>Proportional Stretch</i>	If you want to preserve an object's original ratio of height to width when shrinking or enlarging it by dragging its "stretch handles," select this option. If this option is "off," an object's width or height can be stretched out of proportion. Once the object has been distorted, it cannot be restored to its "original" height to width ratio unless it is deleted from the badge layout and re-inserted as a new object or the "Make Proportional..." commands (below) are used.
<i>Make Height Proportional</i>	Forces the object to decrease or increase in size, achieving the original ratio of height to width, based on the current width of the object.
<i>Make Width Proportional</i>	Forces the object to decrease or increase in size, achieving the original ratio of height to width, based on the current height of the object.
<i>Rotate Badge</i>	Allows you to rotate the badge and all its contents in 90° increments. Selecting this command repeatedly produces 90°, 180°, 270°, and back to 0° rotations.

The **Insert** menu allows you to insert objects onto the badge layout:

Portrait

Inserts portrait images. Portraits are “dynamic” in that IDentifier for Windows inserts each individual’s portrait on their own badge. (Portrait is “grayed out” if it is deselected in ID Setup.)

Signature

Inserts the signatures captured from within IDentifier for Windows. Signatures are “dynamic” in that IDentifier for Windows inserts each individual’s signature on their own badge. (Signature is “grayed out” if it is deselected in ID Setup.)

Fingerprint

Inserts the fingerprints captured from within IDentifier for Windows. Fingerprints are “dynamic” in that IDentifier for Windows inserts each individual’s fingerprint on their own badge. (Fingerprint is “grayed out” if it is deselected in ID Setup.)

Text

Inserts dynamic text into the badge layout. When you select Text, a “pick list” of database fields appears from which you select the field you wish to insert on the badge layout. Text objects are dynamic in that IDentifier for Windows inserts the data in that field from each individual’s record onto their badge.

Image

Inserts a picture that is linked to a database text field. If an image you want to use (for example, a scanned logo) is named the same as the contents of a database field, the Insert/Image command inserts that scanned logo on every badge where that name appears in the specified field. For example, scan an image of California’s state symbol, name the image file “California.” Whenever an individual’s State field in the database contains the text “California,” the California state symbol appears on their badge.

Bar Code

Allows you to insert the database’s bar code field. (Or you may choose any other field from a “pick list” of database fields and change its font to a bar code font.) A bar code object provides the ability to add required encoding characters at the beginning and ending of the text in the database’s bar code field.

2-D Bar Code

Allows you to use Datastrip’s 2D Superscript or the PDF417 bar code if you use 2D bar code readers. 2D bar codes allow many times more data than traditional bar codes. For example, Datastrip’s 2D Super-



script can encode as much as 2100 bytes of data, and incorporate images as well as text.

Static Text Allows you to place text that is identical on all badges, such as a company name or address. Selecting this command brings up a window in which you type text exactly as you want it to appear on the badge.

Static Image Allows you to insert an image or graphic, such as a company logo, that appears on every card.

Solid Box Allows you to create a “border” behind text or image objects. Solid boxes may be dragged and re-sized, but default to being placed immediately behind an object.

Mag Track 1, 2, 3 Does not actually place a visible object on the badge layout, but instructs Identifier for Windows to send the data contained within the mag track field(s) you select to your card printer, which encodes the data on the mag stripe when the card is printed.

The **Align** menu helps you lay out objects on the badge:

Left Aligns multiple selected objects to the left-most object.

Right Aligns multiple selected objects to the right-most object.

Top Aligns multiple selected objects to the top-most object.

Bottom Aligns multiple selected objects to the bottom-most object.

Center Horizontal Aligns single and multiple objects to the horizontal center of the badge.

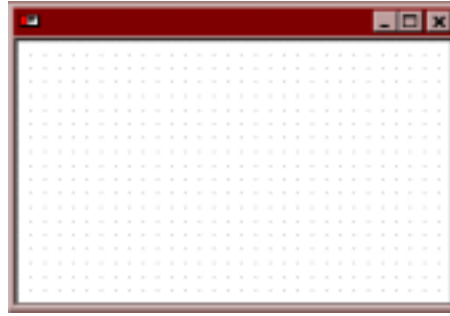
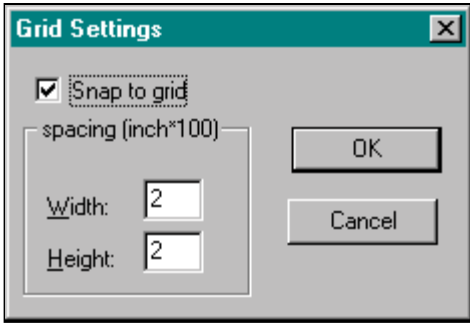
Center Vertical Aligns single and multiple objects to the vertical center of the badge.

Align to Grid Forces selected objects’ top left corner to “snap to” the nearest grid point on the layout.

Size to Grid Forces selected objects to increase or decrease in size to the grid point nearest the bottom right corner of the object.

Grid Settings Allows you to set the size of the grid (from 2/100ths of an inch to one inch) and turn on “snap to grid” so that objects always snap to a grid point when being moved. (See graphic next page.)





grid lines in a badge window

The **View** menu allows you to select either the front or back of the ID card for viewing and editing. (Note: “Back” is only available if you chose the two-sided printing option in the Properties of Badge Background window.

Backside Preview

Displays the back of a two-sided badge.

If you enabled “Preview” in ID Setup, selecting Preview will extract the data from a selected record and present it in the layout window so you may see exactly how the badge will appear in its final output. (See “ID Setup,” page 44.)

Metric Units

Choose whether the unit of measurement is metric.

50%

Reduce the view of the badge to 50% actual size.

100%

View the badge at actual size. (Variations in monitor resolution—e.g., 800x600, 640x480—will affect how closely this reflects the “actual” size.)

150%

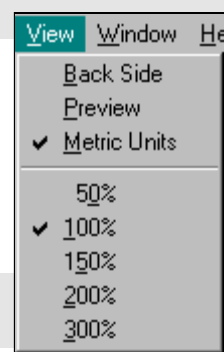
View the badge at 150% of actual size.

200%

View the badge at 200% of actual size.

300%

View the badge at 300% of actual size.



The **Window** menu allows multiple viewing options:

Cascade Tile

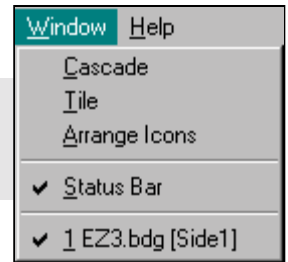
Allows multiple badge layouts to “float” on top of each other.
Forces multiple badge layouts to appear in rows (no overlap).

Arrange Icons

Forces minimized badge layouts to arrange themselves at the bottom of the Badge Layout window.

Status Bar

Toggles the Status Bar at the bottom of the window on and off. The Status Bar displays the name of each badge object when selected.

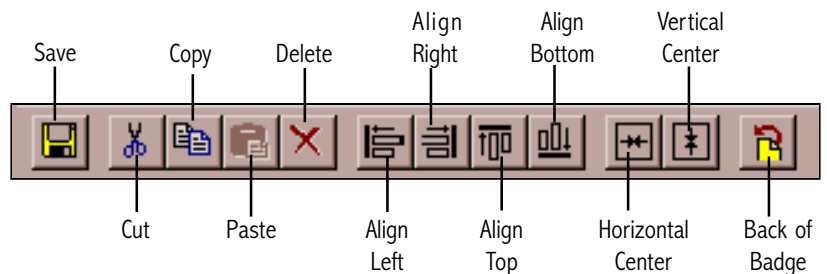


All open badge layouts are listed in the Window menu. You may quickly “set the focus” of a layout by selecting it from this menu.

The **Help** menu brings up the on-line help instructions and identifies the current version of this software.



In addition, a tool bar beneath the Badge Layout window's menus offer quick access to the following commands:



Badge Objects

Each object is inserted onto the badge using the Insert menu command. Once inserted onto the badge layout, objects may be “dragged” to any location on the badge, and stretched (re-sized) by dragging one of the four “handles” that appear at their corners when selected. Alternately, you may re-size objects using the following key-stroke shortcuts:

- Ctrl + any arrow key *expands* the object in the direction of the arrow.
- Ctrl + Shift + any arrow key *shrinks* the side of the object represented by the direction of the arrow.
- ← = the left side of the object.
- ↑ = the top of the object.
- → = the right side of the object.
- ↓ = the bottom of the object.
- Objects shrink or expand in increments of 1/100ths of an inch.

Each object is edited from within a “Properties of...” window by double or right clicking the object after it has been placed on the badge (or by selecting the object and pressing Enter or using the Edit menu’s Object Property command). Different object types offer differing editing options.

Properties of Badge Background

Pull down the File menu to New to create a new badge layout. A Properties of Badge Background window appears. If your card printer supports double-sided printing, click the “Two sided” box. Select either Portrait or Landscape for badge orientation. The Badge Width and Badge Height values are supplied automatically by the card printer’s printer driver (selected in ID Setup when you specified which card printer you are using).

If you want to use a background image or background color, click on either the *Use Image File* or *Choose Color* buttons. Checking *Use Image File* makes a *Browse* button appear. Navigate to and select an image file to be used as the badge’s background. When this option is selected, a *Ghosting* option also appears. Enter a number from 0-99 to “ghost” the image. A “0” applies no ghosting; a “99” applies complete ghosting (invisible). The *Choose Color* button brings up a color window from which you may select from Win-

dows' basic 48 colors, or click *Define Custom Colors* to choose a custom color. (After creating a custom color, click *Add to Custom Colors* adding it to the custom colors bar, and then click that color on the custom colors bar to select it for use.)

If your card printer supports magnetic encoding, click *Encode Mag Track 1, 2, or 3* (whichever tracks your card reader requires) instructing IDentifier for Windows to send data to the card printer for encoding. A drop down list appears beside each mag track selected, allowing you to select the database field whose contents need to be encoded on the magnetic track. Ordinarily, you choose the corresponding mag track fields created in the Configuration section of IDentifier's tools. You may, however, select any other field for encoding by selecting it in this drop down list. You may also build custom "data strings" with the Expression Builder (see below, page 117).

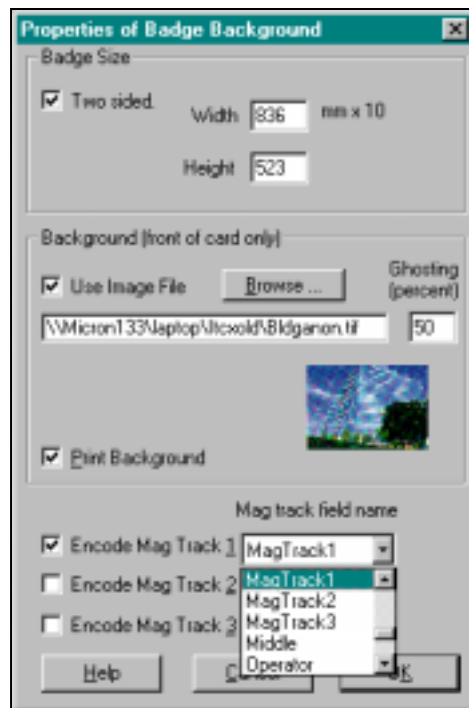


Image Properties

The "Properties of..." window is nearly identical for Portraits, Fingerprints, Signatures, Dynamic Images, Static Images and Solid Boxes. After inserting an image-type, double clicking or right clicking on the object brings up the "Properties of..." window.

To insert a portrait, fingerprint, signature, dynamic, static image or solid box (see special instructions below for inserting solid boxes) onto the badge layout, pull down the Insert menu and select a desired image type. The object appears in the badge layout window as an empty rectangle with its corresponding label. You may shrink or enlarge the image by dragging one of its handles. Double click the object to bring up the "Properties of..." window.

In the "Properties of..." window, IDentifier for Windows automatically names each object as it is placed on the badge. The Sample Value field allows you to select an image file to temporarily appear in the badge layout window assisting you in better visualizing the badge layout. (Click the *Browse* button to navigate to a desired sample image.) The image appearing in the badge layout window is only a sample; IDentifier for Windows associates and inserts each individual's image on their ID badges.



The Badge Position values indicate the location of the image on the badge layout. You may precisely adjust the position by typing in values here, or simply drag the image to a new location using the mouse. (An object's movement may be constrained depending on the size of the grid and whether "snap to grid" was turned on or off.)

You may rotate the image in 90° increments by repeatedly clicking *Rotate*.

You may "ghost" the image by typing in a number (from 0 to 99) in the "Ghosting" field. Ghosting "fades" the image. The greater the number entered, the greater the amount of ghosting employed. You may also make the image "transparent" (allowing background images to "bleed through") by checking *See Through*.

You may control the characteristics of image "re-sizing" by selecting either Scaling *to fit* or *fixed aspect ratio*.

Background Detection: ID Layout provides the ability to detect a specific color or "range of color" within an image. Once "detected," that color can be made transparent, or replaced with a different color or image. In order to implement background detection, you must indicate a color to detect (Key Color), and a "range of sensitivity." Typically, background detection is used to remove the background color in a person's portrait. It may

also be used to remove or substitute different colors in other image or graphic files.

The sensitivity range indicates how closely the image's background color must match the Key Color in order to be "detected." For example, many portraits are captured with a "white" background. But rarely is the background "pure white." Rather, it is a shade or variation of "white." If you set the Key Color to WHITE, ID Layout will attempt to remove all the color in the image that matches "pure white." If the actual background is not "pure white," the color substitution or transparency may not be completely successful. Therefore, the sensitivity range allows you to instruct ID Layout to be more or less "forgiving" in interpreting how close or far from "pure white" the background is. A smaller number means ID Layout should treat the "white" background as "closer to pure white" and only substitute or make transparent those pixels that more closely match "pure white." A larger number means that ID Layout should treat the background as "further away from pure white" and thereby substitute or make transparent more of the background.

A value of 30 or less is generally suitable for portraits. Increasing the value for these images will tend to make the colors further away from white (like teeth or the "whites" of eyes) either transparent or color-substituted. On the other hand, graphic images generated by computer, for example, tend to have "purer" colors, allowing the ability to use lower sensitivity range values.

For portraits, it is recommended that you select "AUTOMATIC" instead of selecting a specific key color. When this is selected, ID Layout will sample the color at the upper left and right corners of the image object, average them, and use the result as the key color. It also protects colors within the face (e.g., white teeth and whites of eyes) from being altered. This generally produces excellent results. (Obviously, if your graphic is not a portrait, but has varied colors at the upper corners instead, this will offer poor results.)

To Change the Background Color of the Image (e.g., the backdrop behind the individual's head in a portrait): Select *Background Detection*. New options immediately appear. Click the *Colored* radio button. A new *Color* button and rectangular "color sample" immediately appears. (The "color sample" shows the currently selected color.) Clicking the new *Color* button opens a Color Selection window in which you may select a new color. The color you select will now replace every instance of the color you specified as the Key Color.



To Eliminate the Background Portion of the Image : Select *Back-ground Detection*. New options immediately appear. Click the *Transparent* radio button to make the background transparent, allowing images or badge background to display behind the portrait.



To Insert a “Rainbow” Pattern: Just as you may remove or change a colored portrait background (the color that appears behind the person’s head), you may insert a “rainbow” pattern or any other graphic image to appear in the portrait background.



After checking the *Background Detection* check box, click the *Rainbow* radio button. A *Browse* button appears allowing you to navigate the hard drive or network. Identifier for Windows provides three sample "Rainbow" images located in a folder named "Rainbows" installed in the ITC directory (or other directory if you chose a different directory when you installed the program). Select either "rainbow1.jpg," "rainbow2.jpg," or "rainbow3.jpg." These colorful rainbows will now fill the portrait background. (Though we provide three colorful rainbow images, you may use any image file you desire.)

To Insert a Transparent Rainbow Pattern: The "Transparent Rainbow" feature is designed for two-color images in which the background is white, such as a signature image file. After checking the Background Detection check box, click the *Transparent/Rainbow* radio button. A *Browse* button appears allowing you to navigate the hard drive or network



for a background image file. The “transparent” part of this feature will make the white background transparent, allowing the card’s background image to show through; the “rainbow” part of this feature changes the second color in the image (for example, the black signature) to the image you “browsed” for. You must set the “Original color to detect” (from the pick list) to match the second color in the image file, e.g., “BLACK” for signatures.

Repeat these steps for the remaining images you want to incorporate into your badge design.

Solid Boxes

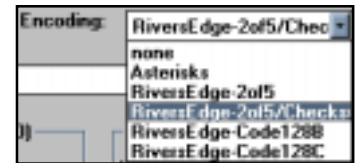
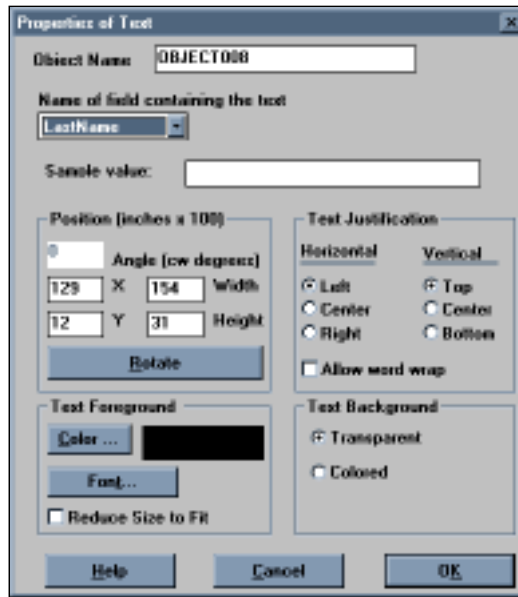
Though Solid Boxes may be inserted as simple colored rectangles, they are usually placed behind other objects to create the appearance of a *border*. Ordinarily, a Solid Box is inserted *after* a text or image object is selected. The Solid Box is placed immediately behind the selected object and is approximately one pixel larger. If a Solid Box is created *first*, the next object placed on the badge will be inserted inside the box and sized accordingly. The Solid Box may be enlarged and stretched as desired.

To *enlarge* a Solid Box in one-pixel increments, press “+” (plus key on numeric keypad) while the Solid Box object is selected; to *reduce* the size, press “-” (minus key on numeric keypad). To *enlarge* or *reduce* the Solid Box on just one side, press Control- and an arrow key (the arrow key corresponds to moving the edge up, down or sideways). To *move* the Solid Box, press Shift and an arrow key.

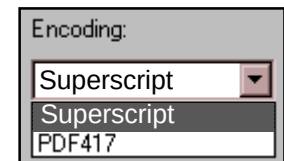
You may apply “ghosting” and “see through” to a Solid Box. (Select the Solid Box and choose “Object Property...” from the Edit menu, or double-left or right-click the Solid Box to open the “Properties...” window.)

Text and Bar Code Properties

Whether inserting static text (text that is identical on all cards), dynamic text (text that is extracted from a record’s database field), or bar codes, the Properties of Text windows are nearly identical. (The Properties window for bar codes adds an “Encoding” drop down list to select and



Properties of Bar Code window adds this Encoding field



Properties of 2D Bar Code window adds this selection

insert the appropriate prefix and suffix to the bar code font selected. Bar code readers require these “start” and “stop” characters to know when to start and stop encoding, as well as to provide additional encryption instructions. The Properties window for 2D bar codes offers a drop down list to select either the 2D Superscript or PDF417 bar code. (See Bar Encoding below, page 128ff.) Double clicking or right clicking on a text object brings up the Properties of Text window from which you may change the text characteristics. Identifier for Windows automatically names each object as it is placed on the badge. If the text object is dynamic, that is, linked to a database field, you may change the database field by selecting an alternate field from the drop down list. You may type sample text in the Sample Value field to better visualize how the text will appear in the badge layout. If the text is static, you may edit the text in the Static Text field. A static text object will allow a maximum of 259 characters. In addition, an “Expression Builder” lets you combine database fields or parts of fields within a single text object. (When you select the equal sign (=) from the drop-down list of database fields in any Properties of Text dialog, an “arrow button” appears to its right. Clicking the “arrow button” brings up the Expression Builder window. See “Expression Builder” below, page 117.)

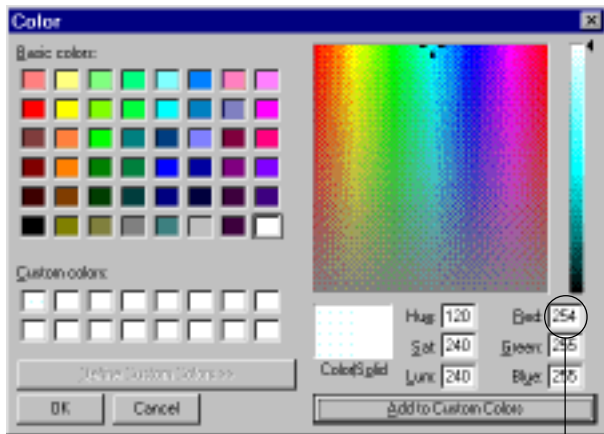
You may align the text vertically and horizontally within the object frame by clicking *Text Justification*. Allow long text to wrap to another line (text wraps after a “space” between words) by checking *Allow word wrap*.

You may rotate the text object in 90° increments by clicking *Rotate*. Text objects

retain their vertical and horizontal justification when rotated.

You may change the font characteristics (typeface, size, style, color, etc.) by clicking *Font* and *Color* in the “Text Foreground” box. In addition, if you apply a scaleable TrueType font, you may force long text to fit within a specific object frame size by checking *Reduce to fit*. (“Reduce to fit” shrinks text as small as 2 pts. if necessary making text fit within a frame.)

Note that text cannot be white (the numeric value for white in the custom color window is: Red = 255, Green = 255, and Blue = 255). To make text *appear* white, go to the custom colors window and change any one of the color numeric values to “254.”



change this value to achieve “near-white,”
then add it to the Custom colors

You may fill the background of the text object with a color or make the object frame transparent by selecting either *Transparent* or *Colored* in the Text Background box of this window.

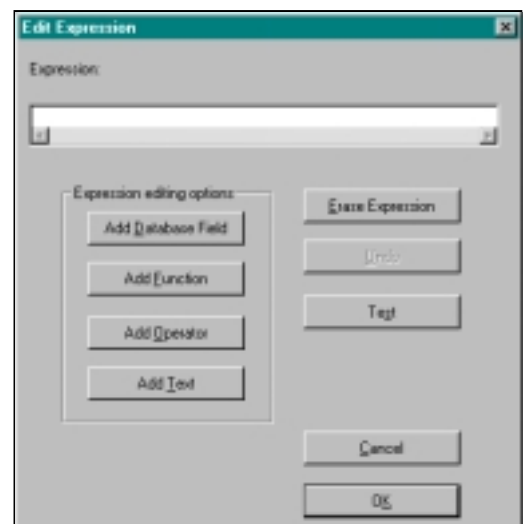
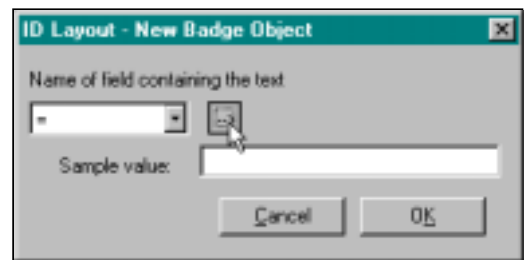
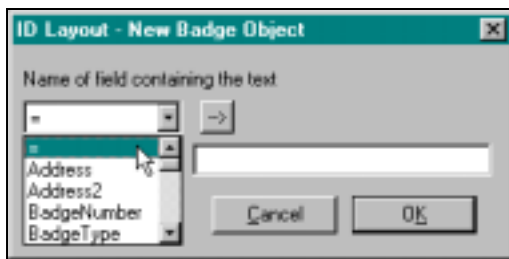
Repeat these steps for the remaining text objects you want to incorporate into your badge design.

Expression Builder

The Expression Builder lets you create special text objects which contain data from database fields, plus literal text strings, and have that data printed on a badge. With Expression Builder you can:

- extract portions of data from within a database field
- combine data with literal text
- create a single badge object which contains data from numerous database fields
- insert images into a 2D Superscript bar code
- create “what if” arguments to insert text on a badge if certain conditions apply
- more...

When you select the equal sign (=) from the drop-down list of database fields in any Properties of Text dialog, an “arrow button” appears to its right. Clicking the “arrow



button” brings up the Expression Builder window.

An editable Expression field allows you to type “expressions” manually, but you may prefer to use the easy “Add...” buttons instead. Unlike other applications which limit you to the number of expressions or custom “data strings” you may use, the Expression Builder allows you to create an unlimited number of specialized displays of your data.

Add Database Field button

Click this button to present a list of database fields. When you select a field and click “OK,” it is inserted into the Expression field.

Add Function button

Click this button to present a list of formatting functions. Note: when a function is inserted into the expression edit field, it is followed by parentheses. The parentheses may have none, one or two commas embedded within them. You must mouse-click inside the parentheses, before or after the appropriate commas, to insert either a database field name, operator, or literal text, depending on the function you are using. Refer to the individual functions below for descriptions of the data inserted within the parentheses.

Command	Format	Example
FORMATL	FORMATL(,)	FORMATL ([EmployeeID], 0000000000)
	This argument “pads” the specified database field with the “mask” supplied after the comma. In this example, 10 zeros is the “mask,” meaning the employee ID field must have 10 characters; if the employee ID field contains less than 10 characters, zeros will be added to the right of the data until there are a total of 10 characters. If the employee ID is originally “12345,” the example above would result in: “1234500000.” 12345=actual data 0000000000=“mask” 1234500000=final result	

FORMATR

FORMATR(,)

FORMATR ([telephone], (716)00000000)

This argument “pads” the telephone database field with the “mask” supplied after the comma. The characters to the right of the comma is the “mask,” meaning the telephone field must have 13 characters; if the telephone number only has 8 characters (e.g., 575-2456), the portion of the “mask” to the left of the number will be added.

575-2456=actual data
(716)00000000=“mask”
(716)575-2456=final result

IIF

IIF(, ,) IIF(NickName <> “”, NickName & “ ” & LastName, FirstName & “ ” & LastName)

This “if” statement reads: IF the field “NickName” does not equal nothing, i.e., is not empty, THEN insert the contents of the NickName field PLUS a blank space PLUS the contents of the LastName field, OTHERWISE insert the contents of the FirstName field PLUS a blank space PLUS the contents of the LastName field. (See Appendix D for a detailed description of the IIF statement.)

LCASE

LCASE() LCASE ([LastName])

This argument reads: Convert the contents of the LastName field to lower case letters. If the last name is Wilson, the result is: wilson

LEFT

LEFT(,) LEFT ([LastName], 2)

This argument reads: Get the first two letters from the left side of the contents of the LastName field. If the last name is Wilson, the result is: Wi.

MID

MID(, ,) MID ([lastname], 2, 3)

This argument reads: Beginning after the second letter, get the next three letters from the contents of the LastName field. If the last name is Wilson, the result is: Iso

REVERSE

REVERSE() Reverse ([LastName])

This argument reads: Reverse the contents of the LastName field. If the last name

is Wilson, the result is: nosliW.

RIGHT

RIGHT(,) RIGHT ([LastName], 2)

This argument reads: Get the last two letters from the right side of the contents of the LastName field. If the last name is Wilson, the result is: on.

TRIM

TRIM() TRIM ([LastName])

This arguments reads: Remove all leading and trailing non-printing characters from the contents of the LastName field (e.g., spaces, tabs, returns, etc.). If a database editor inadvertently entered a “carriage return” after the last name, the TRIM command would remove it.

UCASE

UCASE() UCASE ([LastName])

This argument reads as follows: Convert the contents of the LastName field to upper case letters. If the last name is Wilson, the result is: WILSON

Add Operator button

Click this button to get a choice of operators. Most operators produce numeric results.

%

the % is the **mod** operator; it returns the remainder of a division. For example, 25 % 2 results in: 1; 10 % 3 results in: 1.

&

the ampersand is used to concatenate values. For example, [lastname] & “, ” & [firstname] results in: Wilson, Jerry.

,

the comma separates statements. Note the commas in the following expression: IIF (argument, result1, result2).

/

the forward slash divides numbers. For example, 100 / 2 results in: 50

+

the plus sign adds numbers. For example, 100 + 50 results in: 150

<

the “less than” sign is a Boolean function returning a “true (1)” or “false (0)” value. Example: [Printcount] < “4” results in a True or “1” if the record’s badge

was printed less than four times.” Use this in an “IIF” statement. For example:

```
IIF ([Printcount] < “4”, “”, “Needs to be updated.”)
```

This example would do nothing if the badge was printed less than four times; otherwise, the text “Needs to be updated.” would be displayed on the badge.

<>

this means “not equal to” and is a Boolean function returning a “true (1)” or “false (0)”. Use this in an “IIF” statement. For example:

```
IIF ([Middle] <> “”, [Middle] & “ “ & [LastName], [FirstName] & “ “ & [LastName])
```

This example says, “If the middle name does not equal nothing (two quotes with nothing between them represents “nothing”), that is, if the middle name field contains *something*, then add the middle name and last name. Otherwise, if the middle name field is empty, use the first name with last name.

=

this means “equal to.” For example, [Department] = “Engineering”
Use this in an “IIF” statement. For example:

```
IIF ([Department] = “Engineering”, “Engineer”, “”)
```

This example says, “If the department field contains the text “Engineering,” then insert the word “Engineer” on the badge. Otherwise, don’t do anything.

>

the “greater than” sign is a Boolean function returning a “true (1)” or “false (0)” value. For example, [Printcount] > “4” results in a True or “1” if the record’s badge was printed more than four times.” Use this in an “IIF” statement:

```
IIF ([Printcount] > “4”, “”, “Needs to be checked.”)
```

This example would do nothing if the badge was printed less than four times; otherwise, the text “Needs to be checked.” would be displayed on the badge.

AND

Use AND when you want a query to satisfy more than one argument. Individual arguments must be enclosed within parentheses. The AND operator is used with IIF statements. For example:

```
IIF ([Clearance] = “5” AND [Department] = “Security”, “Access Permitted”, “”)
```

This states, “if the individual has a security clearance level of “5” *and also* is part of the “Security” department, then print the words “Access Permitted on the badge. Otherwise, don’t print anything.

OR

Use OR when you want a query to satisfy only one part of an argument. Individual arguments must be enclosed within parentheses. The OR operator is used with IIF statements. For example:

IIF ([Clearance] = “5” OR [Department] = “Security”, “Access Permitted”, “”)

This states, “if the individual has a security clearance level of “5” *or* is part of the “Security” department, then print the words “Access Permitted on the badge. Otherwise, don’t print anything.

Add Text button

The *Add Text* button allows you to insert strings of literal text into an expression.

Test button

The *Test* button will verify the syntax of the current expression. If the expression “passes,” the Test window will display the result of the expression.

Erase Expression button

The *Erase Expression* button clears the current expression.

Undo button

The *Undo* button removes the last action taken.

Cut and Paste

If you require several badge designs which differ in only one or two aspects, you may easily duplicate a layout.

1. Open the badge design you want to copy.

2. Pull down the File menu, select New creating a new blank layout.
3. Click on the original design making it active. Type Control-A or pull down the Edit menu to Select All, selecting the contents of the first badge.
4. Click the second badge making it active. Type Control-V or pull down the Edit menu to Paste, pasting a copy of the first badge's contents.

or

1. Open the badge design you want to copy.
2. Pull down the File menu and select Save As.
3. Give the badge a new name.
4. Open the newly saved copy.

You may now make the few changes that are required in the second badge.

In addition, to save time by not having to recreate text and images properties, you may copy objects individually from one badge layout to another. Open both the badge layout containing the object you want to copy and the badge you want to edit. With both badges open in the Badge Layout window, click on the object you want to copy, selecting it; type Control-C to copy it. Click in the new badge window, selecting it and type Control-V to paste a copy of the object. The object in your new badge retains the properties established in the original. Repeat this for logos, database text, static text, etc.

IDentifier's cut and paste commands only operate within the ID Layout; inter-application copying is not supported. (For example, an image from Windows' Paint program cannot be copied from the clipboard into ID Layout.)

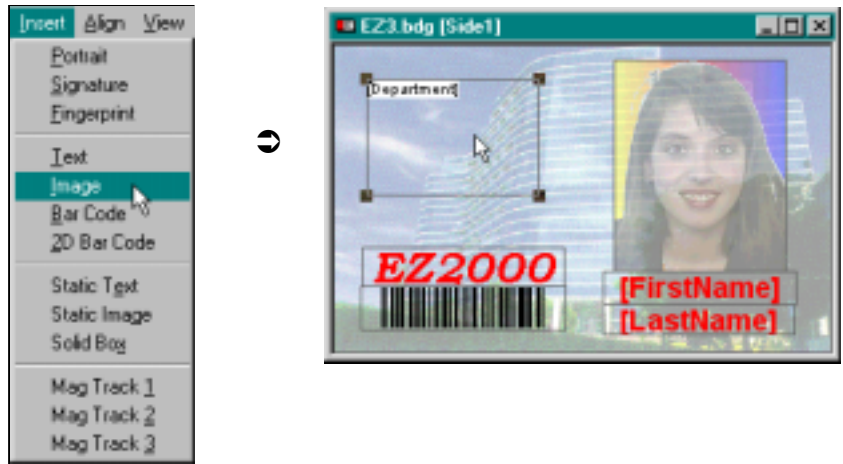
When you have finished designing your badge, pull down the File menu to Save or click *Save* on the tool bar to save your badge layout. Give the badge a descriptive name **no longer than 8 characters** and save it to the directory you specified in the "Server data path" field in ID Setup. IDentifier for Windows automatically adds a ".bdg" file extension to the name. After you saved your first badge layout, return to the File menu and select "New" to begin creating the next badge layout.

You have just learned most of the basic features of IDentifier's badge layout tools. You may want to return to Configuration Management (IDentifier for Windows "home" ➤ Tools ➤ Configuration) to set your default badge layout.

Using the “Insert Image” Command

The Insert Image command is a particularly powerful feature in ID badge layouts. It is useful when different kinds of workers require specific images or logos on their badges. Consider a university setting: you may want all badges to use the same badge layout, but have all faculty badges contain an image of the university crest; all students’ badges to have an image of a book; and all support staff to have an image of the school building. Or consider an airport’s ID badge: using a single badge layout to identify the airport, all pilots’ badges must include a logo of the airline for which they fly. Instead of creating dozens of badge layouts, one for each airline and containing a static image of that company, use only one badge layout for pilots, but which will automatically insert the correct airline logo on their badge. In the example of the airport scenario, here is how this is accomplished:

1. In the Persons Found window of IDentifier for Windows, type in the name of the airline for each pilot in the Company Name field.
2. Scan images of each of the airlines’ company logos and save each image with the exact name being used in the Company Name field in the database. (For example, if you typed “Delta” in the Company Name field in the database, save your scanned image of Delta’s logo as “Delta.”) Because IDentifier for Windows only looks for badge layout images and designs in the directory specified in the “Server data path” in ID Setup, save these logos to that directory. (If you forget the “path,” go to Tools ➤ Configuration Management: the “Server data path” is identified in the Configuration Management window.)
3. In Badge Layout, pull down the Insert menu and select “Image.” In the resulting window, select the database field on which you are basing the association between text and graphic images. (In the example above, select the field “Company.”) That “object” now appears in the badge layout window where you may re-size, reposition or otherwise edit it as you would any other layout object.



4. From now on, if the name of your image file matches the name entered in the text field in the database, IDentifier will bring that image into the individual's badge.

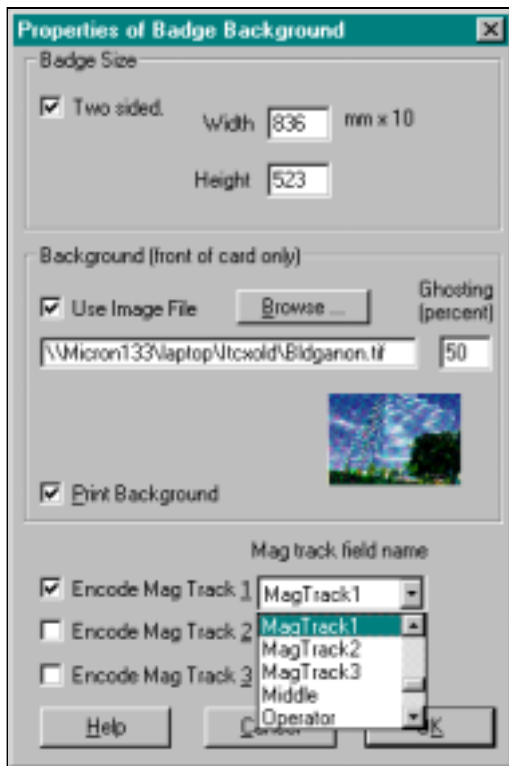
Magnetic Encoding

Magnetic encoding for card printers that support writing to a magnetic strip requires three areas of “setup”: 1) the “prefix” and “suffix” must be configured (described in “Magnetic Encoding” in *Setup ID Server* on page 57), 2) there must be data (text) in the “mag code” field(s) (described in *Configuration Options* on page 39f.), and 3) the mag track must be inserted onto the badge layout (described below).

Inserting Magnetic Tracks in Badge Layout:

You have already set your printer's prefixes and suffixes, and created the data strings in the mag track fields. Now you must insert the mag track fields onto the badge layout. (Note: some card readers may only use data in track two, where other readers will look for data in all three tracks. Refer to your access control device's documentation to determine which tracks are used.)

You may add magnetic encoding in two ways. 1) Pull down the Insert menu and select Mag Track 1, Mag Track 2, or Mag Track 3. An alert window tells you that IDentifier for Windows has inserted the contents of your mag track field (created in the Configuration



window) for encoding. A “check” beside the name in this menu indicates that that track is “placed” in the badge layout. 2) Or pull down the Edit menu and select Edit Background. A Properties of Badge Background dialog appears. At the bottom of this dialog window are check boxes for “Encode Track 1,” “Encode Track 2,” and “Encode Track 3.” Place a check in any of the tracks your card reader uses. A corresponding drop down list of database fields now appears beside each check box. For each of the tracks you use, scroll through the list of database fields and select the corresponding mag track 1, 2, or 3 fields. The contents of your customized mag track fields will now be encoded by the card printer. The magnetic tracks will not appear on the onscreen layout, but Identifier now knows to send that information to the printer whenever the card with that layout is printed.

In some cases you may wish to select an alternate database field for magnetic encoding than what you specified in the Encoding Formulas section in the Configuration window. This is easily accomplished in Badge Layout. With the badge layout open, pull down the Edit menu and select Edit Background. In the Properties of Badge Background dialog, click the Mag Track check box you wish to change. In the corresponding drop down list of database fields, select the

new field you wish to have encoded.

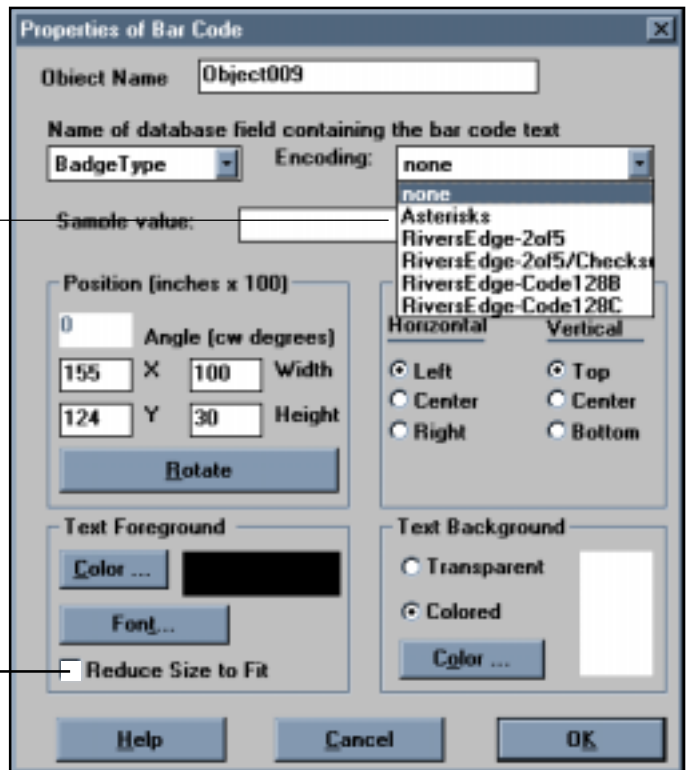
Bar Encoding

Traditional “1D” bar code fonts (displayed as a series of black “bars” of varying thicknesses) vary widely in their implementation. For example, some bar code fonts will only allow the use of numbers (that is, you are not allowed to use letters in a bar code field); some will only allow the use of uppercase letters (if you insert a lowercase letter, the “translation” into the bar code font will fail). The Code 3 of 9 bar code font included with Identifier for Windows allows alphanumeric entry, and will automatically convert data entered in lower case letters to the required upper case format. Ensure that the data you enter into the database field (used for bar coding) follows the “rules” for the bar code font you will use.

Data converted to a bar code font may be “encoded” in a variety of ways, depend-

This drop down list provides the correct bar code prefixes and suffixes

Do NOT use “Reduce Size to fit” with Bar Code objects.



ing on the individual font. Some encoding is simply a matter of providing a “start” and “stop” character to instruct the bar code reader when to begin and end reading actual data. Other kinds of encoding involve complex algorithms to compress text and numbers, and embed error correction mechanisms into the actual “reading” of data.

IDentifier for Windows provides automatic encoding for Code 3 of 9, the Wasp and Rivers Edge bar code families. (Use “Asterisks” for the Code 3 of 9 font.) First, select the correct encoding option from the pick list in the Properties of Bar Code dialog. The correct prefix and suffix will now be inserted automatically. Next, click the *Font* button to select your bar code font. If the bar code font you are using does not appear in the pick list of encoding options, return to the Configuration Management window where you can manually enter the correct prefix and suffix as text strings in the Bar Code expression.

2D bar codes are a more recent innovation. They are noted for their ability to store very large amounts of data (relative to traditional 1D bar codes). For example, Datastrip’s 2D Superscript can hold the entire contents of Abraham Lincoln’s Gettysburg Address and still have room left over for more data. It can also store actual images, such as portraits and/or fingerprints. Since it can hold all the data in a single database record (up to 2100 bytes), the 2D Superscript can be thought of as a static snapshot of a database record—a “portable” database, if you will. In addition, 2D Superscript offers tremendous built-in error correction—up to 50% of the bar code may be damaged due to wear, yet the data may still be “read.”



When you insert a 2D Bar Code, the Properties of 2D Bar Code dialog allows you to select a database field whose contents you want to be encoded in the 2D Bar Code. You may choose the database’s Bar Code field (which allows the concatenation of multiple fields and strings of literal text) or any other field in the database. However, since the Datastrip 2D Superscript bar code can encode up to 2100 bytes of data, including images, you will probably want to use the Expression Builder to encode the contents of numerous database fields and text strings, as well as images.

When implemented in ID Layout, the Datastrip Superscript requires each text string, database field or image object to be placed on a separate “line.” If the data is not placed on its own “line,” the Datastrip 2D bar code reader may not correctly read the data encoded in it. These “virtual lines” are created in Expression Builder by separating each text string or

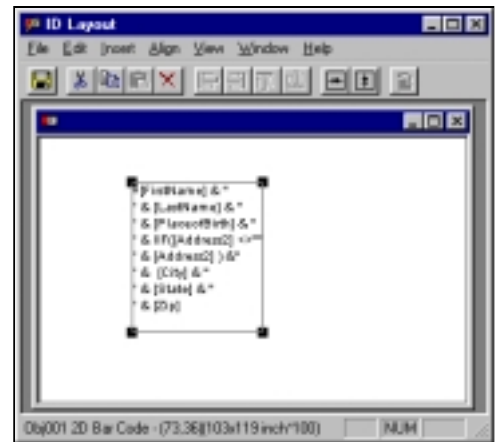
database field with: & “\n” &. (The ampersand (&) is an instruction character telling Expression Builder to “add what follows;” backslash-n (\n) is the keystroke command for “carriage return” and as with any text string, must be enclosed within quotation marks; the trailing ampersand allows the concatenation of the next value to be encoded.)

Therefore, to create your 2D Superscript bar code in Expression Builder, use the Add Database Field button to add a database field. After each database field, use the Add Text button to add the backslash-n required to create a “virtual line.” (If you use the Add Text button to type the backslash-n, Expression Builder automatically encloses it within quotation marks.) A sample expression for use with 2D Superscript might look like the following:

[LastName] & “\n” & [FirstName] & “\n” & [SsNo] & “\n” & “portrait ” & [imageID] & “\n” & “fingerprint ” & [imageID]

NOTE: To insert images, you must manually type the name of the image (e.g., “portrait,” “fingerprint,” “signature”) followed by a space character (spacebar); enclose the image name, including the trailing space, within quotation marks; type ampersand (&) followed by the database field “imageID”; as with all database fields in Expression Builder, fields must be enclosed within braces ([]). The “portrait ” & [imageID]’ must appear on its own “virtual line.” Images are automatically compressed by Superscript; color images are converted to black and white in order to conserve space.

The resulting 2D bar code object would appear in the badge layout as follows:



If the badge is previewed (View menu ➡ Preview), the object would appear like this:



If your results are not as you expect, verify:

- that each field or text string is separated by an ampersand (&);
- that text strings begin and end with quotation marks (“ ”);
- that you have included a space after the words “portrait,” “signature,” and “finger-print;”
- that you have re-sized the 2D bar code object on the badge (if you did not “stretch” the object large enough, the 2D bar code looks like a solid gray rectangle).

Chapter Nine: Reports

In the Tools window, click *Reports*. You are taken to a Reports window which displays a variety of buttons:



Preview

After entering your report criteria, clicking *Preview* displays a preview of the report. You may print your report from the Preview window.



Save

If you created or edited a report, clicking *Save* saves your changes.



Undo

Clicking *Undo* removes the last action taken in the Report window.



	Create	Click <i>Create</i> to create a new report.
	Delete	Click <i>Delete</i> to delete the currently open report. (The open report is identified in the Report Name field.)
	Select Report	Click the down arrow of <i>Select Report</i> to display a list of all saved reports. The selected report appears in the Report window.

Only someone with permission to edit reports may create or edit existing reports (see “User Accounts and Passwords” on page 34). If a user only has permission to view and print reports, only the *Preview* and *Select Report* buttons are enabled.

Creating a report requires three steps:

1. Specifying the query or search criteria for the records for which you want to view or print a report;
2. Specifying the database fields you want displayed in the final report; and
3. Specifying the Sort order of the final report.

Three areas of the Reports window allow you to customize these options.

Search Criteria

Enter your search criteria in the box on the left side of this window. If you want to use a date as a search parameter, place a check in the “Select by date” box. You can use date parameters as the sole criteria for your search, or in conjunction with other search parameters. (Or elect not to use a date parameter in your search by deselecting the Select by date check box.) When you check the Select by date box, the date fields become active. Select a date field from the drop down list of database date fields which you want to use as the basis for your search, e.g., birth date, print date, expiration date, etc. In the “From date” and “To date” fields, enter a starting and ending date for your search. You may enter the dates alphanumerically—that is, either as numbers (7/4/1997) or as text (July 4, 1997). You may even abbreviate the names of months (Feb 4, 1997). Double-clicking in a date field automatically enters the current (today’s) date. Remember to use 4-digit year dates if you set the Regional control panel’s

Short date style to MM/DD/YYYY.

Use the options in the “Additional selection criteria” section to add search criteria. Place a “check” in the small gray box to the left of the “Field” box to make field criteria available. (Each time you click in an empty “check” box, another check box appears below. Clicking on the subsequent box(es) allows the use of up to three fields. When you add a second or third field, an “And/Or” selection box appears. You may select either “And” or “Or” to specify if the query should match *any part* or *all* of the search criteria.) With the “Field” box active, click on its drop down list to select a database field on which to create search parameters. Click the down arrow of the “Operator” box to select a Boolean operator. Last, enter a value in the “Value” box. (Unlike searching in the opening Search window where you were able to enter only a few characters in a field on which to search, you must type the field’s data in its entirety. In a text field, enter the complete word or words for which you are searching; in a number field, enter the exact number, etc. For example, in the Search window, you can find all the records belonging to the Engineer department by typing “eng” in the Department field. To find all the “Engineer” records in the Report window, you must enter “engineer.”)

☒ Select by date
Date field: ChangeDate From date: 1/1/99 To date: 4/6/99
Additional selection criteria:
Field name: Value: AND/OR:
☒ IDNumber > 2000 AND
☒ BadgeStatus = New AND
☒ PrintCount < 5
SQL WHERE clause:

You can enter more complex “Where” statements in the “SQL Where” box using SQL expressions. (Refer to Appendix B for examples of SQL statements.)

Fields to Display in Report

On the right side of the Reports window, the “Fields to output” box provides a drop down list to select any database fields you want to view in your report. IDentifier for Windows places your selected fields in the small text field below. Each time you select a field for output, it is appended to the end of the list. If you want to rearrange the order in which the fields appear on the report, use cut and paste commands in this window.

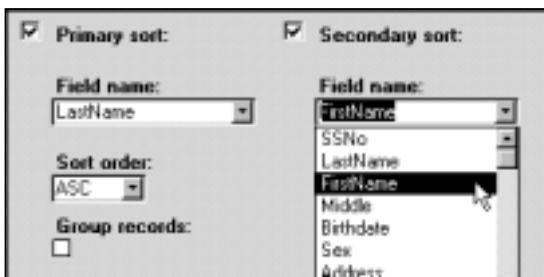
Fields to output:
Add field to output
LastName, FirstName, IDNumber, Department
Column widths:
1.0, 1.0, 1.0, 1.0

Column Width

The data in a report is displayed in columns and rows. Rows correspond to individual records; columns correspond to the various database fields. You may specify the width of each “column” by entering a number (inches) in the Column Widths field. (Separate each number by a comma; specify column widths in the order they appear in the Fields to output field. For example, to make the First and Last names display in one inch columns, but have the Address display in a 2.5 inch column, enter: 1,1,2.5.)

Sort Order

Finally, create a sort order by selecting a field for primary and secondary sort, and select whether the sort is in ascending or descending order. To view the results alphabetically by last name, place a check in the Primary Sort check box, and select LastName in the list of database fields. In addition to simple sorting, you may create “sub-summary” sorts by selecting the “Group” check box below the Primary Sort or Secondary Sort fields. “Group-



ing” groups together all the records with identical values. For example, if you choose the “Department” field for sorting and grouping, and your database contains “Engineer,” “Management,” “Maintenance,” and “Accounting” entries, all the records in the Engineering department will be grouped together, all the records in the Management department will be grouped together, and so on. You may sort the records within the groups by selecting an additional field for Secondary Sorting.

Tip: When grouping, insert the field to be used for grouping at the beginning of the list of fields displayed for output.

Click *Save* to save your report. Your saved reports appear in the *Select Report* drop down list, *Export text file* list in the Tools window, and *SQL search queries* at the “home” page.

Preview and Print Reports

To preview and print your reports, click *Preview*. The report appears in a preview window. (The mouse turns into a “magnifying glass;” click the mouse anywhere in the window to enlarge or reduce the report.) To print the report, pull down the File menu and select Print. Select Print Setup from the File menu to select additional printing options. Select Output to... to save a copy of the report to an external source. To close the preview window, pull down the File menu and select Close.

NOTE: The Report defaults to Windows’ default printer. If you set a PVC card printer as your Windows default, the report will try to display (preview) in a window the size of your PVC card. The actual data may be distorted or not appear at all in the preview window. To correct this, pull down the File menu to “Print Setup.” On the “Page” tab of this dialog, select a paper printer. The report will now display correctly.

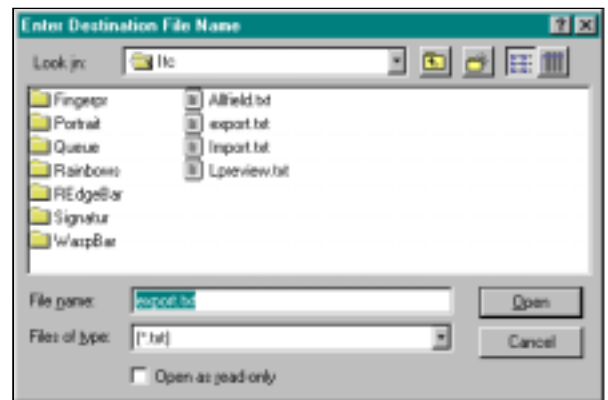
Chapter Ten: Importing and Exporting

There may be occasions when you will want to export your database file for use in another application or for use at a remote site, or import data from another database. Use *Import Data* to import an existing database into your own. Use *Export Delimited Text File* to export your database. Import and Export buttons are located in the Tools window.

Exporting

Exporting an Identifier for Windows database lets you create a comma-delimited text file containing all the text data for every record in the database.

1. Click *Export Delimited Text File*. In the next window you are prompted to enter the path and name for the export file you want to create. Click OK.



2. A second window appears confirming that the export text file was written as you specified. You may now import this file into another database. Click OK.
3. Open the export text file you just created. (Double-clicking on the file's icon in Windows Explorer opens the file in Windows' NotePad.) Though the data does not line up evenly, you

can see that the data in each line follows the same order. The first line of the text file identifies the names of the database fields. In the rows below, the contents of each of the database fields is listed in the same order. In both the first line and all subsequent

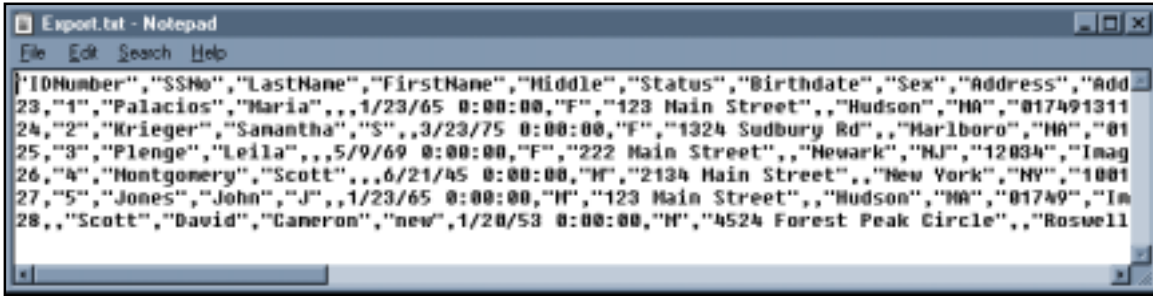


Figure 1

lines below, the field name and field contents are separated by commas.

In addition to *Export Delimited Text File*, there is an *Export selected records* button with a “Selection specification” drop down list immediately below. The *Export selected records* button is disabled until you select a query from the list. The “Select specification” list displays the names of your Reports. This allows you to export just the records which were queried for a report. (For example, if a report entitled “Contract Employees” is designed to display all individuals whose badge type is “Contract” and you want to export those records for use in another database, select “Contract Employees” from the drop-down list. The *Export selected records* button is now enabled. Clicking it will export those records.



Importing

IDentifier for Windows imports data from a variety of sources: from a Microsoft Access database, from any other IDentifier for Windows or IDentifier for Windows database, as well as from any database that has exported its data to a comma-delimited ASCII text file. There are only two requirements of the file to be imported: 1) if the source data resides in an ASCII text file, it must be *comma-delimited*, and 2) the field names of the source database file *must exactly match the field names* IDentifier for Windows uses.

Comma-Delimited:

There are a variety of export formats (e.g., “dbf,” “tab-delimited,” “SYLK,” etc.). “Comma-delimited” means that the contents of the database are “dumped” in a text file, logically arranged in columns and rows. The database fields represent the “columns” and are separated from each other by commas; the “rows” represent each record in the database. You can see in *Figure 1* on page 140, though the *data* does not line up perfectly with the *names* of the fields on the first line, IDentifier for Windows keeps track of the *commas* separating the field names and content of the fields from each other.

Field Names Must Match:

If the field names (columns) of the export text file exactly match the field names used in IDentifier for Windows, IDentifier for Windows extracts the textual data from all the records in that column and inserts it into the corresponding field in the IDentifier for Windows database.

If the comma-delimited text file contains a “header” or “first row” identifying the names of each field, you must verify and/or edit the names, ensuring that they exactly match IDentifier’s equivalent fields. If a field in the export text file does not match exactly, then IDentifier for Windows assumes that all the data in the rows below do not belong in the IDentifier for Windows database; the data in that field will not be imported. The *order* in which the fields (columns) appear in the source file do not have to match the order they appear in *Figure 1*; all that has to match is the field name itself. IDentifier for Windows automatically inserts the data into the correct field. When you finish editing the export text file, save it as a plain ASCII text file. IDentifier for Windows only imports an ASCII text file.

Some database applications, when creating a comma-delimited export file, simply create a text file containing the actual textual data in the database. That is, there is not a “header” at the top of the file identifying the field names for the data in the rows below. In that case, open the file in a text editor and type in a new *first line* providing the names of the fields in the order (from left to right) in which the data in the export text file appears. You may optionally enclose each field name in quotation marks; each field name must be separated from others by a comma. Depending on the text editor you use, all the field names may not physically fit on one line. In that case, allow your word processor’s automatic text wrap to continue your field names on the second and third lines, with you entering a carriage return (Enter key) only when you finished all

field name entries. When you finish editing the export text file, save it as a plain ASCII text file. IDentifier for Windows only imports an ASCII text file.

If you do not want to import data from a field whose name *exactly matches* a field used in IDentifier for Windows, rename the field in the export file to one not used by IDentifier for Windows (e.g., “not_used,” or “skip”). Because the field names will not match, IDentifier for Windows ignores the data in those fields.

Importing a File



Click *Import Data* in the Tools window. An Import window appears. Follow steps 1 through 4.

Back

Step 1: Select a type of database.

Step 2: Select a field in your existing database which references matching data in the import file.

Step 3: Select your import options. ☐ import image identifiers from input file when records are added

Step 4: Select your import file. Path to test file: Text Import/Export Specification:

☒ Path to portable to import:

1. Select the type of database you want to import from the “pick list.” You may select either a comma-delimited text file, IDentifier for Windows or IDentifier for Windows database, or another Microsoft Access table. If you select either “comma delimited text file” or “IDentifier for Windows/IDentifier for Windows,” an “open dialog” appears in which you simply navigate to the appropriate file on your hard drive or network and click

Open. If you select “Microsoft Access table,” an “open dialog” appears in order to navigate to the Access database, but an additional window appears in which you may select the specific *table* from which you will import the records.

2. Select a field *which contains data unique to each record* (e.g., social security or employee number) from the “pick list” of your existing database fields. IDentifier for Windows will use this field to compare the records between the two database files and ensure that data from the external file is imported into the correct record.
3. Select your import options. “Text only” will import just the text; “Text and images” will import both text and images; “Images only” will import just the images. “Add only” will only add records that do not currently exist in the current database; “Update only” will only update records which exist in both database files (“update” overwrites data in the current IDentifier for Windows file with the data from the external file); “Add or update” will update existing records AND add new records from the external database file. The “import image identifier from import file” check box will cause the import to use the existing “image ID” or “image name” of the import record; otherwise, a new image ID will be automatically created.

Note: If you select “Text and Images” or “Images only,” a new field appears displaying the current path specified in ID Setup as the “Server data path.” If you want to import the images to an alternate location, enter the new path here.

4. Select the external database whose records you want to import by clicking the *Import* button. This presents an “open dialog” in which you navigate to the file. After clicking *Open*, an alert window informs you how many records are about to be processed. Click *Yes* to continue or *No* to cancel.

Chapter Eleven: Repairing and Compacting

Data in your database may become corrupted from time to time for a variety of reasons:

- power outage
- hardware problems
- corrupted system files
- other factors

In addition, repeatedly editing a database (such as changing personnel information or creating new records) causes the database to save or write these changes to disk inefficiently. Periodically, it is useful to “compact” the database by reclaiming unused disk space. IDentifier for Windows includes *Repair and Compact* utilities in to address these issues.

You can compact the database: from the Windows “desktop” (*Start* button ➤ Programs ➤ IDentifier for Windows program group), or from within the IDentifier for Windows application itself. Note this distinction, however: using the “Repair and Compact” tool from within the IDentifier for Windows database only repairs and compacts the *variable* data, i.e., data that you actually enter for each record. Repairs to the *non-variable* data (tables and forms) cannot be made when the database file is open.

From Outside the IDentifier for Windows Application:

From the *Start* button, open the program group for IDentifier for Windows. Within this program grouping are icons for “Repair IDentifier for Windows App” or “Repair IDentifier for Windows Dat.” The “IDentifier for Windows Repair App” program repairs and compresses the *non-variable* application data; the “Repair IDentifier for Windows Dat” program repairs and compresses the *variable* data.



Repair the application: Select “IDentifier for Windows Repair App.” IDentifier for Windows immediately begins repairing the database. A “progress bar” at the bottom of the window shows that “repairs” are being performed. After a few seconds, a window appears informing you that the database has been successfully repaired. Click *OK* in that information window to pro-

ceed. Another “progress bar” appears showing you that the database is being compacted. When completed, you are returned to the Windows desktop.

Repair the data: Select “Repair IDentifier for Windows Dat.” IDentifier for Windows immediately begins repairing the database. A “progress bar” at the bottom of the window shows that “repairs” are being performed. After a few seconds, a window appears informing you that the database has been successfully repaired. Click *OK* in that information window to proceed. Another “progress bar” appears showing you that the database is being compacted. When completed, you are returned to the Windows desktop.

From Inside the IDentifier for Windows Application:



Launch the IDentifier for Windows application and click *Tools* on the “home page.” In the Tools window, click *Repair and Compact database*. An alert window appears, warning you that this process may take some time. Click *Yes* to proceed. Shortly, another alert window appears informing you that the database was repaired and compacted successfully. Click *OK* to return to the Tools window.

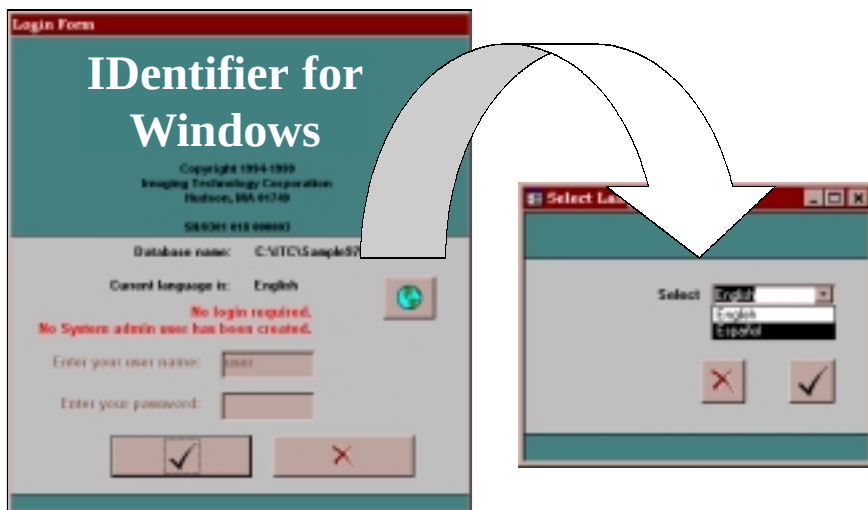
Microsoft Access 97 runs an internal “integrity” check each time you open a database. In rare instances, if your database is damaged, an alert window appears when you first try to launch IDentifier for Windows. The alert informs you that damage has been detected and that a repair will be attempted. Click *Yes* in that alert window to initiate the repair. When the damage is repaired, the IDentifier for Windows database is opened.

Chapter Twelve: Changing Languages

There are two parts of the IDentifier for Windows application where languages must be configured: 1) the application's *Forms* (its windows, buttons and alert messages), and 2) the names of the *Database Fields*. Ordinarily, you will set both areas of the application to use the same language. IDentifier implements its support for multiple languages in the following way: English is built-in as a default language, while *any second language* may be added (provided a language file for it has been created). IDentifier includes a Spanish language file in its default installation. In addition, Imaging Technology Corporation provides a “translation utility” to its development partners for creating additional language files required for IDentifier for Window's worldwide users. Note that the process of converting from English to another language may necessitate the rebuilding of the database's tables and forms. As you read in “Chapter Four: Database Design,” the database must be empty before tables and forms can be rebuilt. If you have already begun creating records, export these to a text file before you proceed further. If you wish to convert IDentifier to Spanish, follow the instructions below.

Converting to Spanish

At the logon window when you first launch IDentifier for Windows, click on the *Globe* button. You are taken to a “Select Language” window in which you may choose between

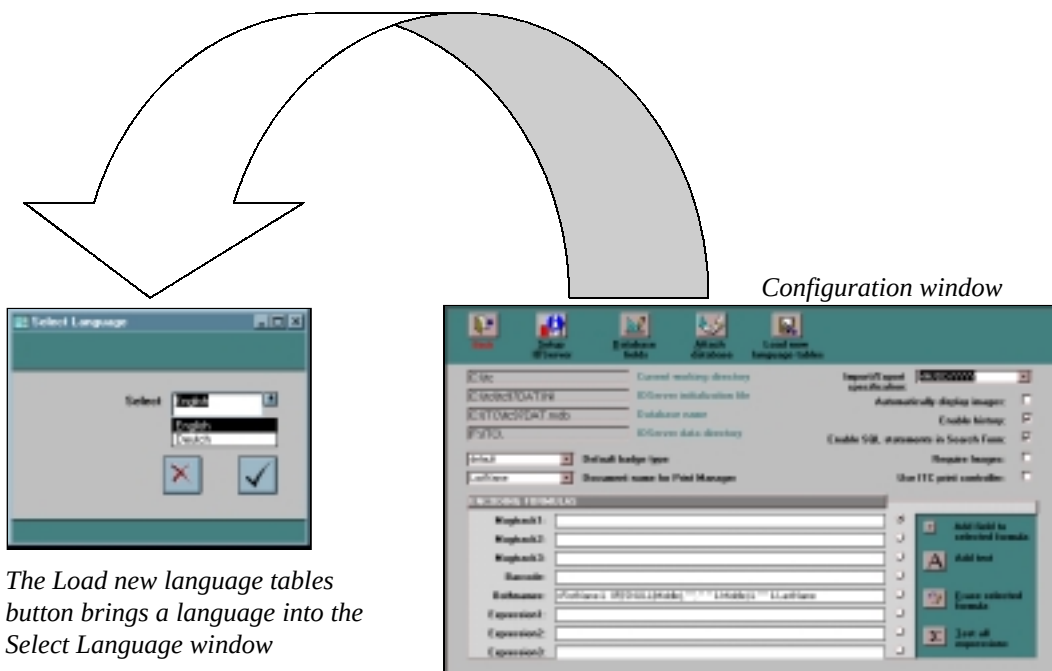


English and Spanish. Select Spanish and click the ✓ button. You will immediately see “progress bar” activity at the bottom of the window as IDentifier rewrites all its forms, buttons and alert messages. You are returned to the opening logon window where you may now enter your user name and password.

You will notice, however, that though much of IDentifier’s “interface” is now, indeed, in Spanish, the names of many of the database fields are still in English. To convert these to Spanish, go to Tools ➔ Configuration ➔ Database Fields ➔ *Restore archived field definitions button*. Clicking *Restore archived field definitions* brings up a standard Windows “open dialog” box which default-opens to the path you specified in “Server data path.” Select the file named “Spanish.fdf.” and click *OK*. You are prompted to confirm your selection. Now click the *Build new database and forms* button in the Database Design window. After the tables and forms are rebuilt, all of IDentifier for Windows is now in Spanish.

Adding Another Language

If Imaging Technology Corporation or an authorized dealer has created an additional foreign language file for you, you must use the *Load new language tables* button in the Configu-



ration Management window to make it available. Clicking on the *Load new language tables* button brings up a standard Windows “open dialog” box displaying all the language files present in the directory you specified as your “Server data path.” (If the language file is not present in this directory, navigate to its location on your hard disk.) Selecting the language file and clicking *OK* will write that language to a hidden “language table” inside the IDentifier for Windows application. Once that language table has been written, you are prompted to “redraw” all of IDentifier’s forms, buttons and alert messages. Clicking *OK* at this prompt takes you to the “Select Language” window in which you select your preferred language. The forms and alert messages are redrawn. You are returned to the logon window where you may now enter your user name and password.

You must now turn to the database fields if you wish them to appear in the same language. Click on the *Restore archived field definitions* button in the Database Design window and select the file which contains the foreign language field definitions you want. You are prompted to confirm your selection. Now click the *Build new database and forms* button. If your database contains no records, the database will immediately be rebuilt. After the tables and forms are rebuilt, all of IDentifier for Windows is now in the language you selected.

Chapter Thirteen: History

Identifier for Windows provides the ability to track changes made to specific records by clicking the *History* button in the Persons Found window. These are “record events.” Identifier for Windows also creates a log of “application events” such as logins and logouts, and which tools a user has accessed, etc. To view the “application events” history, click *History* in the Tools window. A History window appears.



 Back  Show activity  Remove old history					
	Date	Workstation	Operator	Operation	Description
▶	04/05/1999 12:31:18 PM	unknown	david	TOOLS	Configuration Management
	04/05/1999 10:32:17 AM	unknown	david	TOOLS	Reports
	04/04/1999 4:14:40 PM	unknown	david	CONFIGURATION	Run ID Setup
	04/04/1999 4:14:39 PM	unknown	david	TOOLS	Configuration Management
	04/04/1999 4:13:54 PM	unknown	david	CONFIGURATION	Run ID Setup
	04/04/1999 4:13:52 PM	unknown	david	TOOLS	Configuration Management
	04/04/1999 4:12:08 PM	unknown	david	CONFIGURATION	Run ID Setup
	04/04/1999 4:12:06 PM	unknown	david	TOOLS	Configuration Management
	04/04/1999 2:35:55 PM	unknown	david	CREATE	IDNumber=1, DocumentName=Scott
	04/04/1999 2:22:14 PM	unknown	david	LOGIN	david
	04/04/1999 2:01:16 PM	unknown	david	TOOLS	Reports
	04/04/1999 10:23:13 AM	unknown	david	CONFIGURATION	Run ID Setup
	04/04/1999 10:23:12 AM	unknown	david	TOOLS	Configuration Management
	04/04/1999 10:22:21 AM	unknown	david	CONFIGURATION	Run ID Setup

There are two categories of buttons at the top of the History window: *Application* buttons and *Column heading* buttons.

Activity buttons:



Back

The *Back* button returns you to the Tools window.



Show activity

The *Show activity* buttons toggle between viewing “record events” and “application events.” The buttons are distinguished by a “show ID” and “don’t show ID” symbol. The “ID” refers to the ID number of individual database records. Clicking “show ID” displays a history of every change made to every database record. Clicking “don’t show ID” displays a history of just the application events.



Remove old history

The *Remove old history* button allows you to delete a range of “history” records older than a record you specify. NOTE: this operation deletes BOTH “record event” records and “application event” records.

Column heading buttons:

Clicking the column heading buttons sorts the records below in ascending and descending order. To view the history records sorted by date, click the *Date* button; to view the records sorted by workstation, click the *Workstation* button. Clicking the button a second time reverses the sort order.



ID

The ID column only appears if you clicked the *Show ID* button. The ID number corresponds to the Identifier number in the Persons Found window, located immediately below the orange heading “Record History.”

Date

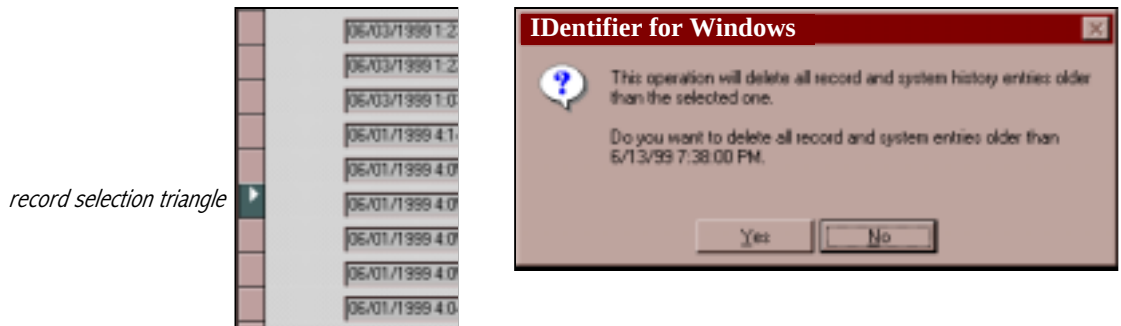
The Date column records the date and time an event occurred.



<i>Workstation</i>	The Workstation column records the name of the workstation at which an event occurred.	Workstation
<i>Operator</i>	The Operator column records the logon name of the user who performed an action.	Operator
<i>Operation</i>	The Operation column records the area of the program accessed or the action performed in a record.	Operation
<i>Description</i>	The Description column records a more detailed description of the event or action if applicable.	Description

Deleting History Records:

If your history “log” has grown old and long, you may wish to delete unneeded records. The deletion of records is based upon *records’ dates older than a record you select*. To delete records, first select a record whose date comes *before* those you wish to delete. (Select a record by clicking once in the left margin; a “record selector”—triangle—appears in the margin.)



Click *Remove old records*. A dialog appears asking you to confirm the deletion. Click *Yes*. All records older than the one you selected will be deleted.

Appendix A: Graphic File Formats

In the following table a video image was captured at 300 by 375 pixels (1 x 1.25 inches). The "File Size" column shows the size of each image saved in the various file formats. Identifier for Windows accepts graphic images in any of the following formats.

Image Format	Color Depth	File Size	Description
JPEG	24 bit	12k	This format provides the best compression, but image information is lost during compression. JPEG is an acronym for "Joint Photographic Experts Group." Writes a ".JPG" file extension
TIFF Compressed	24 bit	11k	This format gives the best compression without losing image information. TIFF is an acronym for "Tagged Image File Format." Writes a ".TIF" file extension.
TIFF Huffman	1 bit	12k	This format uses 1 bit per pixel. For black and white images only; not greyscale.
TIFF	24 bit	331k	No compression. Writes a ".TIF" file extension.
PCX		221k	Format compatible with ZSoft Corporation's Paint Brush program. Writes a ".PCX" file extension.
TGA (24 bpp) Uncompressed	24 bit	330k	TrueVision's Uncompressed TARGA format. Writes a ".TGA" file extension.
BMP	24 bit	330k	Windows uncompressed bitmap. Writes a ".BMP" file extension.
BMP Compressed	8 bit	90k	Windows compressed bitmap. Writes a ".BMP" file extension.
BMP (bbp GRAY)	8 bit	125k	Uncompressed grayscale bitmap image suitable for fingerprints, or images captured with Black and White camera. Writes a ".BMP" file extension.
WMF	24 bit	330k	Windows MetaFile. Writes a ".WMF" file extension.
PICT	24 bit	222k	Apple Computer's format for the Macintosh. Writes a ".PIC" file extension.

Appendix B: SQL & Boolean Operators

Operator	Description	Example	Eplanation
<	This means, "is less than." This operator can be used with text, numbers or dates.	LastName < "S" BirthDate < #1/1/55# PrintCount < "3"	Returns all last names between A and R Returns everyone who was born before 1/1/55 Returns everyone whose badge was printed less than three times
>	This means "is greater than." This operator can be used with text, numbers or dates.	LastName > "S" BirthDate > #1/1/55# PrintCount > "3"	Returns all last names between T and Z Returns everyone who was born after 1/1/55 Returns everyone whose badge was printed more than three times
<= and >=	This means "less than or equal to" and "greater than or equal to."		
=	This means, "equals to" or "same as." This operator can be used with text, numbers, or dates.	LastName = "Hutchinson"	Returns all records where the last name is Hutchinson
<>	This means, "does not equal." This operator can be used with text, numbers, or dates.	BadgeType <> "Active"	Returns all records whose badges are not currently assigned an "active" status
AND	When searching for more than one variable, use "AND" to separate two or more "tests. The search will yield a result if both conditions have been met.	BadgeType = "Level 3" AND Department = "Engineering"	Will find all individuals who were issued a "Level 3" badge and belong to the Engineering department
BETWEEN	This allows you to search for a range of values; this operator can be used with text, numbers or dates	BirthDate BETWEEN #1/1/55# and #12/31/55#	Will find all individuals who were born between January 1, 1955 and December 31, 1955. (Dates must be enclosed with "pound" signs.)
NOT	Use the NOT operator to evaluate the opposite condition (that is, whether expression lies outside the range)	Birthdate NOT BETWEEN #1/1/55# and #12/31/55#	Will find all individuals born before 1/1/55 and after 12/31/55.
OR	This allows you to search for multiple values. The search will yield a result if either of the conditions you specify have been met	(Company = NULL or BadgeStatus = "Expired")	Returns all records whose Company field is empty and all records whose badge status is "expired." (When using the OR function, the expression must be enclosed within parentheses ().)

Operator	Description	Explanation
LIKE	The "LIKE" operator searches for data strings that contain data like the data you specify. The LIKE function can be used with a variety of special characters:	
	LIKE "a*a"	finds data beginning and ending with the letter "a"
	LIKE "*ab*"	finds data with the letters "ab" embedded anywhere within it
	LIKE "ab*"	finds any string beginning with the letters "ab"
	LIKE "a?a"	finds any strings beginning and ending with "a" and any character (letter, number, character) between them
	LIKE "a#a"	finds any strings beginning and ending with "a" containing a single number between them
	LIKE "[a-z]"	finds any string beginning with the letters a through z
	LIKE "[!a-z]"	finds any string that lies outside the range of a through z, e.g., "9," "&," "%"
	LIKE "[!0-9]"	finds any string that lies outside the range of 0 through 9, e.g., "a," "&," "~"

Appendix C: Input Masks & Field Formatting

Input Masks

An input mask is used in text fields to format data and provide some control over what values can be entered. An input mask consists of literal characters (such as spaces, dots, dashes, and parentheses) that separate blanks to fill in. The InputMask property setting consists of literal characters along with special characters that determine the kind of value that can be entered into the blank in that position. Input masks are primarily used in Text and Date fields, but can also be used in Number fields. (Note: Expression Builder's use of Format Characters is sometimes inconsistent with Microsoft Access 97.)

The following table shows some useful input mask definitions and examples of values you can enter into them. Refer to the table at the end of this topic for details on the codes used to create input mask definitions.

<u>Input mask definition</u>	<u>Examples of values</u>
(000) 000-0000	(206) 555-0248
(999) 999-9999!	(206) 555-0248
	() 555-0248
(000) AAA-AAAA	(206) 555-TELE
#999	-20 to 2000
>L?????L?000LO	GREENGR339M3
	MAY R 452B7
>LOL OLO	T2F 8M4
00000-9999	98115-
	98115-3007
>L<???????????????	Maria
	Pierre
ISBN 0-&&&&&&&&-0	ISBN 1-55615-507-7
	ISBN 0-13-964262-5
>LL00000-0000	DB51392-0493

The input mask definition can contain up to three sections separated by semicolons; for example, (999) 000-0000!;0;" ".

<u>Section</u>	<u>Meaning</u>
First	The input mask itself.
Second	Determines whether to store the literal display characters. 0 = store literal characters with the value entered 1 or leave blank = store only characters entered in blanks
Third	Character that is displayed for blanks in the input mask. You can use any character; type " " (double quotation marks, space, double quotation marks) to display a space. If you leave this section blank, the underscore (_) is used.

When you create an input mask, you can use special characters to require that certain data be entered (for example, the area code for a phone number) and that other data be optional (such as a telephone extension). These characters specify the type of data, such as a number or character, that you must enter for each character in the input mask.

You can define an input mask by using the following characters.

<u>Character</u>	<u>Description</u>
0	Digit (0 through 9, entry required; plus [+] and minus [-] signs not allowed).
9	Digit or space (entry not required; plus and minus signs not allowed).
#	Digit or space (entry not required; blank positions converted to spaces, plus and minus signs allowed).
L	Letter (A through Z, entry required).
?	Letter (A through Z, entry optional).
A	Letter or digit (entry required).
a	Letter or digit (entry optional).
&	Any character or a space (entry required).
C	Any character or a space (entry optional).
. , : ; - /	Decimal placeholder and thousands, date, and time separators. (The actual character used depends on the regional settings specified by double-clicking Regional Settings in the Windows Control Panel.)
<	Causes all characters that follow to be converted to lowercase.
>	Causes all characters that follow to be converted to uppercase.
!	Causes the input mask to display from right to left, rather than from left to right. Characters typed into the mask always fill it from left to right. You can include the exclamation point anywhere in the input mask.
\	Causes the character that follows to be displayed as a literal character. Used to

	display any of the characters listed in this table as literal characters (for example, \A is displayed as just A).
Password	Setting the InputMask property to the word Password creates a password entry text box. Any character typed in the text box is stored as the character but is displayed as an asterisk (*).

When you type data in a field for which you've defined an input mask, the data is always entered in Overtyping mode. If you use the BACKSPACE key to delete a character, the character is replaced by a blank space.

If you move text from a field for which you've defined an input mask onto the Clipboard, the literal display characters are copied, even if you have specified that they not be saved with data.

Note: Only characters that you type directly in a database field are affected by the input mask. Microsoft Access ignores any input masks when you import data from an external source.

When you've defined an input mask and set a Format property for the same field, the Format property takes precedence when the data is *displayed*. This means that even if you've saved an input mask, the input mask is ignored when data is formatted and displayed. The data in the underlying table itself isn't changed; the Format property affects only how the data is *displayed*.

Field Formatting

The Format property affects only how data is displayed. It doesn't affect how data is stored.

You can use the following symbols in custom formats for any data type.

<u>Symbol</u>	<u>Meaning</u>
(space)	Display spaces as literal characters.
"ABC"	Display anything inside quotation marks as literal characters.
!	Force left alignment instead of right alignment.
*	Fill available space with the next character.

\ Display the next character as a literal character. You can also display literal characters by placing quotation marks around them.

[color] Display the formatted data in the color specified between the brackets.
Available colors: Black, Blue, Green, Cyan, Red, Magenta, Yellow, White.

@ Text character (either a character or a space) is required.

& Text character is not required.

< Force all characters to lowercase.

> Force all characters to uppercase.

When you have defined an input mask and set the Format property for the same data, the Format property takes precedence when the data is displayed and the input mask is ignored. For example, if you create a Password input mask and also set the Format property for the same field, the Password input mask is ignored and the data is displayed according to the Format property.

Custom formats for Text fields can have up to two sections. Each section contains the format specification for different data in a field.

<u>Section</u>	<u>Description</u>
First	Format for fields with text.
Second	Format for fields with zero-length strings and Null values.

For example, if you have a text field in which you want the word “None” to appear when there is no string in the field, you could type the custom format @;”None” as the control’s Format property setting. The @ symbol causes the text from the field to be displayed; the second section causes the word “None” to appear when there is a zero-length string or Null value in the field.

Appendix D: IIF Statements

The IIF function will operate on information you supply within the parentheses. The commas within the parentheses separate the three parts of the IIF function, which are: (argument, result1, result2). If the IIF function were “spoken in plain English,” it would sound like this: “If such and such a condition is true, then automatically generate this response; otherwise, if the condition is not true, generate this alternate response.” The “such and such condition,” “this response,” and “alternate response” in the plain English sentence above is what gets placed within the parentheses of the IIF statement. How do you know what to enter for the “argument,” “result1,” and “result2”?

After “IIF (, ,)” has been entered in the Expression Builder Edit window, click your mouse between the open parenthesis and the first comma. This is where you will enter the “argument.” Arguments typically compare the data from a specified database field with a value that you supply within this parenthesis. For example:

- [company] = “Delta”
- [PrintCount] > “2”
- [ExpDate] BETWEEN #01/01/1999# AND #12/31/1999#

Note that the first word in these examples is the actual name of a database field; database fields must always be enclosed within square brackets ([]). The field name is followed by an Boolean operator (=, <, >, And, etc.); the Boolean operator describes *how* you want the data in the database field compared to the value you will supply next. The final element of the argument is the actual data (text, dates, or numbers) which you will specify. Therefore, you may create any “argument” or “condition” that you want. Do you want something to be inserted on a badge if the individual’s company equals “Delta”? Do you want something to be printed on the badge if the badge has been printed more than two times? Expression Builder will “test” this argument...it will look at the contents of any database field you specify here, and see if it matches the data you instructed it to compare it to. If the actual database field contents match what you supply in the argument, Expression Builder will insert whatever you supplied for “result1” onto the badge; if there isn’t a match, Expression Builder will print whatever you specified for “result2.”

Let’s create an argument. Let’s say that you’re willing to print your employees’ first three badges at company expense, but that *they* must pay \$15 for each additional badge if

they become lost or damaged. You want to make a visible reminder on the badge so employees will be more careful. So, if the badge has been printed two times or more already, you want the following message to be printed on the badge: "You will have to pay for your next badge!" The argument for this is as follows:

`PrintCount >= "2"`

PrintCount is the name of an actual database field which keeps a running count of the number of times a badge has been printed. >= (the "greater than" and "equals" signs) means "is greater than or equal to." You manually type the number 2 and enclose it within quotation marks. (Literal text or values that *you* supply must be enclosed within quotation marks.)

In the Expression Builder's Edit window, after you have inserted the IIF function, click your mouse after the "open parenthesis," but before the first comma, and type your argument:

`[PrintCount] >= "2"`

The Edit window should display:

`IIF ([PrintCount] >= "2", , )`

Now that the "argument" is created, you must tell Expression Builder what to do if the argument passes or fails. The syntax of the IIF statement, remember, is IIF (argument, result1, result2). "Result1" is the "true" result...what should happen if Expression Builder indeed finds records whose PrintCount is greater than or equal to 2. (In this case, the result you want is text displayed on the badge.) Therefore, click your mouse *between the first and second commas* embedded within the parentheses and type (with quotation marks): "You will have to pay for your next badge reprint!" (This message will be displayed on every badge that has been printed 2 or more times.)

If the argument fails—that is, if the badge has NOT been printed 2 or more times—you don't want anything printed on the badge. Therefore, click your mouse in the space after the second comma, and before the closing parenthesis, and type two double-quotes (""). Two double-quotes, with nothing entered between them, equals "nothing" in Expression Builder.

Your finished IIF statement looks like the following: `IIF ([PrintCount] >= "2", "You will have to pay for your next badge reprint!", "")`.

Consider a variation of this: You want to indicate on the badge if the portrait image is older than, say, 12 months. How do you do this? You create an argument that compares the date an image was last captured with an arbitrary test date. If the difference is greater than 12 months, you want the word “**Dated!**” to be displayed on the badge underneath the portrait image. The expression would look like the following:

```
IIF([ImageDate] < #01/01/1999# , "Dated!" , "" )
```

ImageDate is a database field that appears when you click the Add Database Field button. The application automatically records the date whenever an image is captured. We use the “less than” operator, because dates going backward (in the past) are numerically *less* than today or future dates. We arbitrarily pick a date from 12 months ago—images captured earlier than that will be flagged. Note that dates must be enclosed within pound signs (#). And if you set your “Short date format” in Windows Regional Control Panel to a 4-digit year, you must enter a 4-digit year. If the argument is true, we want the word “**Dated!**” to be displayed underneath the portrait. If the argument doesn’t pass (because the portrait is more recent than 1/1/99), nothing will be printed.

After you close Expression Builder, the text object will display the actual expression within the object boundary. (If Preview has been enabled on the View menu, the data specified for “result1” or “result2” will be displayed.) Double-click on the text object in the Badge Layout window to open the Properties of Text dialog. Edit the text’s font, size, weight, color, etc. Reposition the text object so it appears below the portrait.

Appendix E: Network Installations

Networking requirements will vary from installation to installation, depending on the network topography, geographic and physical layout of the work site, and the kinds of workstations required (e.g., “capture” station, “view” station, “print” station, “administration” station, etc.). Nonetheless, the following discussion will offer an overview of a “typical” installation in a local area network (LAN).

It is assumed in this discussion that the various PC’s to be used are already configured for networking using either an IPX/SPX (Novell) or TCP/IP (Windows) network protocol, and that they are able to browse Network Neighborhood and map network resources.

To reiterate the instructions detailed in the section on Software Installation, the file server or network drive which will contain Identifier’s data and image files must be “mapped” to the local drive prior to software installation, and subsequently for access to the data. There are several ways to map a drive.

1. *If the drive has been previously mapped*, it will likely be “remembered” in the small “Map Network Drive” dialog after clicking the Map Drive button in Windows explorer. Simply select the drive from the pick list and click *OK*. (You may select an optional drive letter, but you *must* select “reconnect at logon” to ensure that you will always have access to the actual data, images and badge layouts.
2. *If the drive has not been previously mapped*, doubleclick *Network Neighborhood* on the desktop or from within Windows Explorer. Then, double click or expand *Entire Network*. Continue browsing through the network workgroups and drives until you locate the one shared for Identifier’s use. Right click on the drive and select “Map Network Drive...” from the context menu. You *must* select “reconnect at logon” to ensure that you will always have access to the actual data, images and badge layouts.

or

If the drive has not been previously mapped, open Windows Explorer and select Find | Computer from the Tools menu. If you know the name of the computer, enter it in the “Computer named:” text field and click *Find now*. Once the computer has been “found,” double click its icon to display it’s hard drive (each drive will display as a folder). Right click on the drive and select “Map Network Drive...” from the context menu. You *must* select “reconnect at logon” to

ensure that you will always have access to the actual data, images and badge layouts.

When “network installation” is selected when installing IDentifier for Windows, two important things occur:

First, the file “ITC97app.mdb” is written to the local workstation, while the file “ITC97dat.mdb” is written to the network drive. “ITC97app.mdb” is the file responsible for presenting the “windows” or database forms which make up the “user interface” to the IDentifier for Windows application. In order to view and edit data and images, therefore, this file must reside on each computer running IDentifier for Windows. “ITC97dat.mdb,” on the other hand, is the file which stores the *actual data* which users enter into the database fields. This file needs to be somewhere on the network where other computers can access the information it contains.

Second, a special directory structure is created on the network drive. That is, directories or “folders” for storing IDentifier’s image and badge layout files are created. When other computers want to preview or print badges, they will look to this common directory...all the data in these directories are “shared.”

One of the most frequent troubleshooting questions Imaging Technology Corporation receives relates to application-generated error messages stating that image or database files cannot be found. This happens most frequently in networked installations when 1) a network engineer moves the “shared directory” to another hard drive or server, and the local workstations can no longer attach to the database, or 2) a local workstation has incorrectly specified the Server data path where IDentifier for Windows is to look for images and badge layouts. Therefore, become very familiar with the network paths to database and image files. Regularly verify that each workstation is attached to the ITC97dat.mdb on the network drive, rather than to a copy stored locally.

Any number of PC’s can attach to the IDentifier for Windows database, although Microsoft Access limits simultaneous connections to a single database to 254 workstations. Depending on your requirements, your network will have many PC’s running IDentifier for Windows. Even though IDentifier for Windows at each workstation is capable of viewing, creating and editing records, capturing images and printing badges, it is likely that some workstations will be dedicated to specific tasks. The tasks at each station may be restricted either through logon user-permissions or programmed security keys which control application functionality.. Typical workstations might be:

1) **View-Only** stations contain the Identifier for Windows software with no additional hardware (cameras or printers). These stations may view records and images in the database.

2) **Data Entry** stations allow the entry and editing of data.

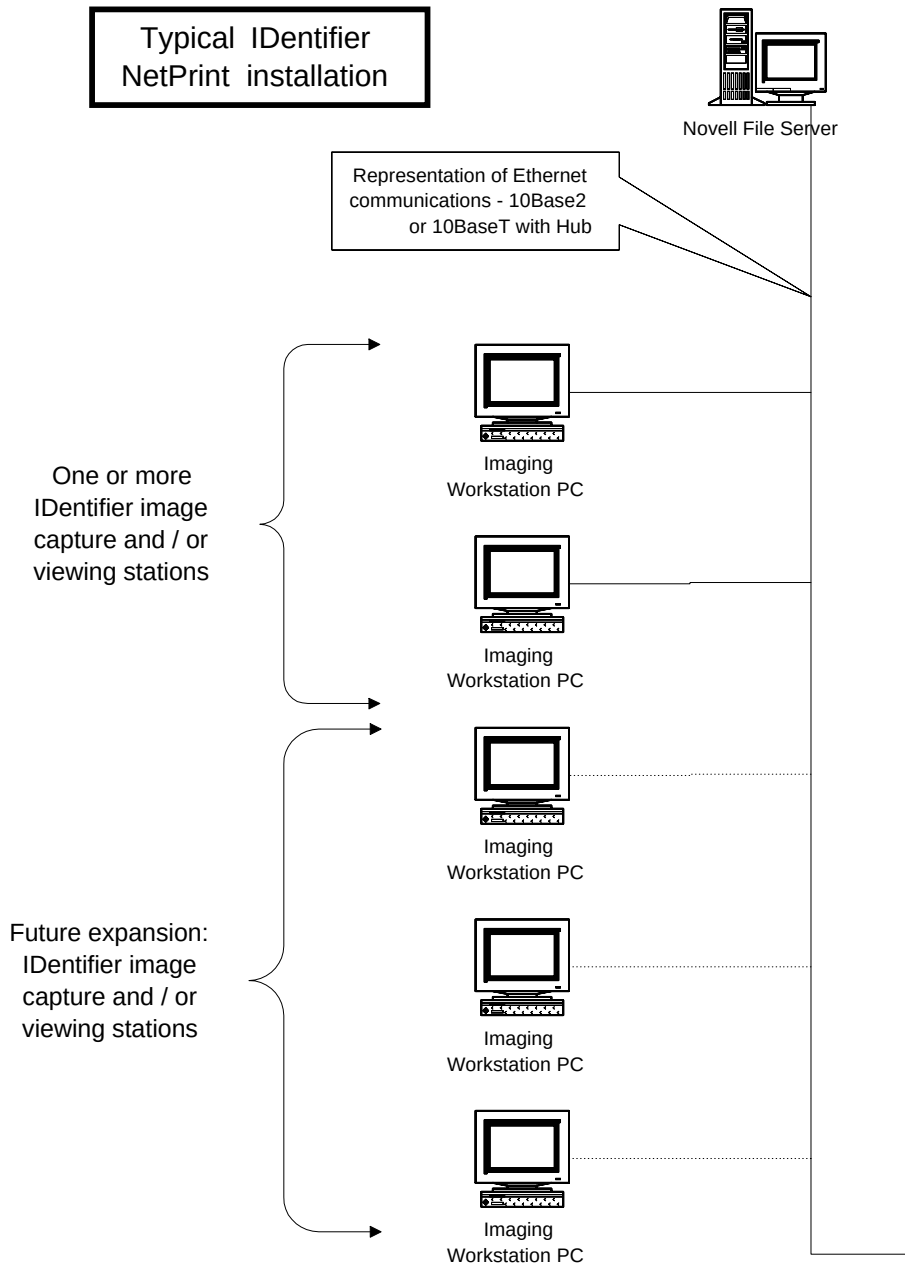
3) **Image Capture** stations have digital or video cameras attached to them. In some installations, it may make perfect sense to perform data entry and image capture from the same PC, where other sites may want to separate the process of image capture from data entry. The only difference is the presence or absence of a camera at the PC.

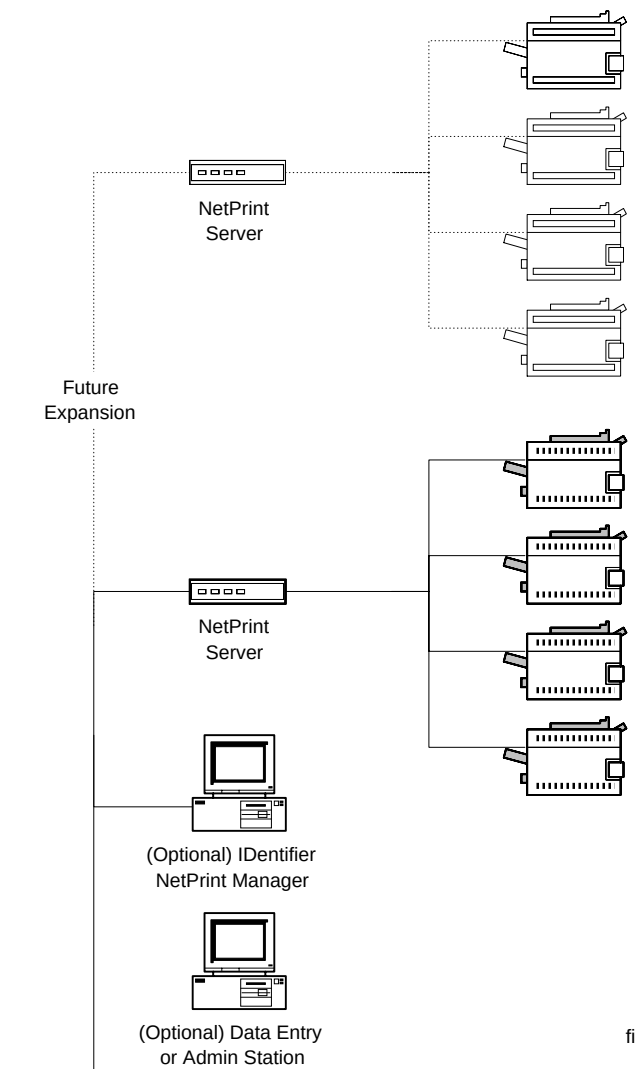
4) **Print--** If the print volume is small, printing may be performed at a data entry or image capture station. High print volumes, on the other hand, require multiple printers, as well as other specialized hardware and software, optimized for peak production. High volume printing typically sees card printing moved into a controlled environment--that is, a room whose access is controlled, and which enforces standards of cleanliness.

5) **Administration** stations may be required to print reports, manage scheduled maintenance tasks such as database backups, and administer user accounts, etc. All that is required, usually, is a sheet printer connected to this workstation or the ability to print to a networked printer.

Please turn the page to view a diagram of a typical network setup. Following the diagram is a discussion about what it attempts to represent.

Typical Identifier NetPrint installation





fi

The diagram begins with a Novell File Server which stores the database and image files. (In reality, this can be any network drive running NetBEUI, IPX/SPX or TCP/IP network protocols.) The decision to store a shared database on a networked PC versus a powerful network server depends on the size of the database, the “performance” required of it, whether customized interfacing with other applications is desired, money, and other factors. Typically, users turn to dedicated file servers with powerful central processing units (CPU’s) and high configurations of RAM, when the data in the database must be shared transactionally with other applications on the network. Integration with other applications (such as Oracle, SQL Server, etc.) requires custom programming.

Flowing down from the File server, the diagram shows a number of “Imaging Workstation PC’s.” The number of workstations in the diagram is arbitrary. In reality, they may be view-only, data entry, image capture or combination stations. The diagram shows that issues of “scaling” or “expanding the system” is as simple as adding more PC’s to the network, or installing additional copies of IDentifier for Windows software on existing networked PC’s. (The software at each PC is not fully functional, however, without a security key.)

The diagram next shows the addition of an optional “data entry” or “administration” workstations. Again, any copy of IDentifier for Windows is able to view, edit, or create records, capture images, or print badges. Creating task-specific workstations is as simple as adding the necessary hardware to the PC.

While card printers *could* be connected to individual PC’s at the Imaging Workstations, this diagram shows a more sophisticated printing solution: a “print farm” or “print factory.” In this scenario, an IDentifier for Windows workstation is used as a “Net Print Manager.” This workstation will be dedicated to queueing badges for printing and sending the queue to a “NetPrint Server.” The NetPrint server is a small computer (not requiring a user interface) which intercepts the print queue and intelligently “rips” or “rasterizes” the badges and sends them to the first available printer connected to it via a parallel port.

Finally, the diagram shows that adding printing power is as simple as adding additional NetPrint Servers and printers to the network.

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